BURMA UNDER BRITISH RULE



ENTRANCE TO A SHRINE

BURMA UNDER BRITISH RULE

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BY

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"THE JAPANESE EMPIRE AND ITS ECONOMIC CONDITIONS"

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INTRODUCTION

IT is always interesting to see ourselves as others see us. M. Dautremer was long enough Consul for France in Rangoon to get a good knowledge of the country, and he has written a most informing book about Burma for the benefit of his fellow-countrymen. He is a fearless critic, and does not hesitate to point out that Burma offers much that both the French Government and the settlers in Cochin-China and Tongking might copy with advantage. His book is much more like a consular report of the ideal kind than a mere description of the country. There have been very many books about Burma, some of them mere picture-books with letterpress thrown in, like the flour that is required to keep a plum-pudding together; others perilously like popularized encyclopædias; quite a good many the haphazard reflections of more or less observant and industrious fine-weather tourists, whose impressions are sometimes as diverting as the diary of Li Hung-chang in Europe, but mostly without his wit and shrewdness.

M. Dautremer is not to be classed with any of these. He knows what he is writing about, he omits nothing, and he looks upon everything from a thoroughly practical point of view.

His conclusion is that French Indo-China has a great deal to learn from Burma, but at the same time that Burma is not progressing so fast as it might and should. There is no doubt that he is right. Burma is in much the same position as Malaya was when the Straits Settlements were under the authority of the Honourable East India Company and the Indian Government. Allowances are kept down to the smallest possible amount, and all ambitions are consistently frowned on. We should never have been established in the Straits of Malacca if it had not been for the foresight of Francis Light and Stamford Raffles. The Court of Directors would have been perfectly satisfied with the squalid port of Bencoolen on the west coast of Sumatra. They were so infatuated about it that they clung to the dismal settlement for about a century and a half, built Fort York and Fort Marlborough, and actually transferred Stamford Raffles there after he had founded Singapore. The patriotism of Light and Raffles forced on the occupation, first of Penang and then of Singapore, with the result that at the present time the imports and exports of Malaya are about one hundred

millions sterling annually. That is to say that they are worth considerably more than the entire commerce of Great Britain a hundred years ago.

The process by which we came to take possession of Burma was no less unpremeditated, but here it was the Burmese who forced action upon us. It began with the threat of King Bodawpaya to invade India if he did not have his own way, and it ended with the proclamation in which King Thibaw called upon his people to drive the unhallowed foreigners into the sea. The end was inevitable, and it was no doubt accelerated by the relations which King Thibaw tried to enter into with the French Government. These M. Dautremer has quite candidly and fully set forth in his second chapter, and there is nothing more to be said on the subject. But from the first the Indian Government looked upon the acquisition of Burma with disfavour. Only a few years after the first Burma war there was actually an idea of giving up Tenasserim, because it had too small a population. Arakan was all very well because it touched Chittagong, lay on the Bay of Bengal, and had a population which acknowledged a considerable tincture of Indian blood in it. But Tenasserim was looked upon as an encumbrance and an expense. There was no one who foresaw that it will probably rival the Federated Malay States in wealth, which it

will derive from its rubber plantations and the tin and wolfram mines that are only now being opened out. But even now it may be said without exaggeration that it is absolutely without roads. It is in the same state that Perak and Selangor and Negri Sembilan were thirty years ago. In these thirty years the Federated Malay States have made two thousand miles of metalled roads and Tenasserim has none after three times that number of years. More than that, they have laid down many miles of railway, which inspired the non-federated State of Johore with emulation, so that in the space of little more than twenty years nearly seven hundred and fifty miles of a trunk system exist, running from Singapore up to Kedah.

What is true of Tenasserim is not much less true of the whole province. In all Burma, apart from the towns, there are barely two hundred miles of metalled and properly bridged roads, and these would not carry the motor-omnibuses which ply regularly in the Malay States. Otherwise there are not above a thousand miles of road in Burma, and they are what are called "country roads," some of them bridged and drained, some of them only partly bridged and drained, and the rest merely spaces where the jungle has been cut down. These are convenient enough for mere local purposes,

but they are practically useless from the point of view of development. In the dry weather a Burmese cart can, and often does, go straight across country, but in the rains the so-called "country" roads are just as impassable as rice-fields would be, and that means that Burma is roadless for six months in the year.

It is hardly any better off in the matter of railways. Arakan and Tenasserim were annexed in 1826, and they neither of them have a mile of railway to the present day. The Irrawaddy delta was added in 1852, and it was twenty-five years before it got a railway line, and then it was only a mètre-gauge. It probably would not have been built even then if it had not been that the Government of India found it had the plant of a light railway on its hands and did not know what to do with it. Up till that time the argument had steadily been that it was no use building a railway to compete with a great navigable river like the Irrawaddy, because all the freight would go by the river, and the line could never pay. The railway, however, was laid down, and it immediately proved itself quite a profitable speculation and now pays a steady ten per cent. on the capital expenditure. It was another eight years before anything was done, and then a railway was constructed up to Taungoo. This was very grudgingly given, and

probably would not have been sanctioned if it had not been that the journey up the Sittang River was very dangerous for troops on account of the bore. There were no hopes that anything would be made out of it, and yet it began to pay from the moment it was opened. The extension to Mandalay, and later the line from Sagaing to Myit Kyina, were built more with the idea that it was the cheapest way of pacifying the country and establishing British authority than with any real anticipation of profit. Yet they also have proved quite good speculations. There have been other lines built since. They are all recorded by M. Dautremer, and are all in the nature of feeder lines. There is nothing of the courage and far-sightedness of the Federated Malay States scheme about them, no idea of a real trunk line. The builders of the Straits aim at having through communication with India, and, if they can shame India into it, with Calais. There is no broad-minded view like this to be detected in the Indian policy. They are infected with the babu spirit, and cannot see beyond their immediate horizon. They are like a man who would go on selling matches in the street, because he can make a living out of it, and would never dare to dream of the possibility of owning a match-factory for himself and sending consignments to the ends of the earth.

This poor-spirited want of broad views prevented the East India Company from doing much that it might have done, and the mantle of the Company has fallen on the bureaucracy of the Government of India.

M. Dautremer holds up the energy of the Briton to the admiration and emulation of his countrymen in Indo-China, but there is a sort of polite sarcasm in the way in which he chronicles roads which start with the idea of going somewhere and end nowhere in particular.

Railways were first constructed in India for purely administrative or strategical purposes. This was no doubt as imperative as it was wise but views since then have become very poor-spirited. The tendency now is to build them for purely immediate commercial results to carry more rapidly what is already carried in other ways. That is not the way of the Empire-maker, or the Empire-maintainer, or even of the magnate. It is the way of the parochial Board, or of the small shop-keeper, or even the pedlar. The locomotive is the emblem of progress everywhere, not less in the East than in more settled continents. What we want is railways that will create commerce, and the railways that do that are trunk lines, through railways, not railways that end fatuously at vague points in the interior like

Nushki, or Myit Kyina, or Lashio. It is no use saying that the Indian railway system is no less land-locked than that of Burma. India needs communication with Europe just as much as Burma needs direct communication with India. It will be to the great advantage of Afghanistan and Persia and Asia Minor and civilization when a trans-Persian line comes about, as it inevitably must. But that is no reason why India and Burma should remain separated in the meanwhile, nor why there should be no attempt to push southwards to where the Federated Malay States are making history—and incidentally making a very great deal of money. The obvious line for the railway to India is a prolongation of the Mu Valley railway northwards up the Hukawng Valley and over the Patkoi range. The objection of the cautious, nothing-venture, mole-horizon people is that there is practically no population on the route. But there is fair evidence that the Hukawng Valley was at one time quite well peopled. Some of the races in northern Assam, who are connected with the Kacharis (or Kossaris as they are locally called), have a tradition that in former times they lived in the Hukawng Valley. It is more of what the Scottish call a strath than a valley. There is abundance of flat land, and it is covered with luxuriant vege-

tation. The india-rubber-bearing *ficus* grows very well there, and quite a considerable amount of rubber is even now exported, though the Kachins have done their best to destroy the industry by tapping the roots with the object of getting as much rubber as quickly as possible. It is a historical fact that the Shan invaders of Assam went over the Patkoi range. It is true that they did not come back again, but that is no proof that this was because the pass was a difficult one. As a matter of fact we know, from the survey of Mr. Way, that it offers no particular difficulties to the railway engineer. The fact that there is now no population to speak of means nothing at all. The land is certainly fertile, but it is surrounded by Kachins, who are very far from being desirable neighbours, and, in fact, prefer living on blackmail to any other means of livelihood. There is nothing that settles a country more thoroughly than a railway, and there is nothing like it for bringing population, and what Burma wants is population. It is far more thinly peopled than Siam or Tongking.

Burma ought never to have been joined on to the Indian Empire. The character of the country is different. The races that inhabit it are entirely different, and it is shut off from India by mountain ranges which prevent free

intercourse. But the cry for separation has come much too late. Burma cannot be separated from India now without a series of complications which would not be worth the effort. There would have to be a separate administrative service, and separate measures for defence. The province is too big to be cut off from India as the Straits Settlements were cut off. A country which has frontiers marching with China, with Siam, and with the territories of the French Republic, cannot be without a considerable military force, and the entire Burma garrison is detailed from India and would inevitably continue to be so for a considerable number of years if Burma became self-governing. It seems quite probable that the Shans and Kachins, and probably the Wa and Chins, would make quite good troops. The experiments which have been made with the Shans and the Kachins certainly seem to prove this, but the small numbers so far enlisted and drilled are not by any means conclusive, and the results achieved with a half-company here and a company there are not definite enough to warrant cutting the painter. It would be worth the while spending a little more money to make a more extended trial of the hill tribesmen. The Kachins and the Wa may prove as excellent scouts and as valuable light infantry, and prob-

ably far more active than the somewhat slow-moving Gurkha, and the Shans may show themselves to be as steady and stolid under fire as the Russian or the Chinese infantry.

But the main argument for railway connection with India is the consolidation of our Indian Empire. At present Burma is more like an island than a piece of a continent, and it is practically as isolated as the Straits Settlements are. It is not too much to say that Singapore is the pivot of the trade of all the East. With a tonnage of something like twenty-five millions, it is the seventh port in the whole world and the fourth in the British Empire, and its recently completed graving dock is one of the largest in existence. From the point of view of strategical importance there is no place in the Empire that is above it. Whenever world problems are being discussed, Singapore inevitably takes a foremost place. Yet troops for its defence could only be got there by sea, and that certainly not under a week. If Burma were connected with India by railway, the connection with the Malay States railway system would come as a matter of course, and British interests in China, Australia, and India would breathe all the freer. It would be worth while building the railway merely as a policy of insurance, but it would be much more than

that—it would be a most profitable investment. The line would pay almost from the moment of its completion.

But it is not merely north and south that Burma wants railways to make it the real model possession that M. Dautremer is courteous enough to call it; it also wants railways to the east. No matter where the Burmese came from —and that is a sufficiently debated point—it is not to be disputed that they have more connection with the races of China than with the Indian Empire. They resemble them more, they intermarry with them more satisfactorily, and they certainly like and respect them more.

From the time when we were first established in Burma, after the first Burmese war, there has always been a desire to open up communication with South-Western China. Nine years after the end of the war Mr. Blundell, the Commissioner of the Tenasserim Provinces, wrote through the Government of India to the Honourable the Court of Directors of the East India Company advocating the opening up of a trade route with Yün-nan. He prevailed on them to send Captain McLeod, who naturally went up through Siamese territory by way of Chiengmai, but he got no farther than Chieng-hung, where both the Burmese and Chinese officials united to prevent him from going out of the Shan States [illegible] the

border. There were other expeditions at long intervals. Sladen went as far as T'êng-yüeh (Momien, as it was then called) at the time of the long fight between the Chinese Mohammedans and the Imperialists. He was followed by Colonel Horace Browne, but the murder of Raymond Margary prevented anything being done. There have been a number of other enthusiasts, notably Mr. A. R. Colquhoun, but nothing has come of any of their endeavours.

The first proposals were no doubt impracticable. Cart-roads are never of any value except for local traffic. As soon as they extend to hundreds of miles they become valueless, because the cost of carriage swallows up all the profit on the produce. This applies naturally, with still greater force, to bridle-tracks, which were the new routes at first contemplated until Mr. Colquhoun and the late Holt Hallett developed their idea of a railway up from Eastern Burma from some point on the Salween. The objection to this was that the greater part of the railway would have been in territory which was not British at all. Moreover, there was the timidity and total want of desire to inform themselves of principal Secretaries of State of both the great political parties. They imagined that the susceptibilities and suspicions of France would be aroused, both as regards possible designs on

Siam and with reference to their own line from Tongking to Yün-nan-fu. It is a very easy thing to talk about large maps and neglect to look at them yourself. Therefore the proposals were consistently carped at, disparaged, and doused with cold water. Nothing more has been heard of them since the annexation of Upper Burma gave us a frontier with China many hundred miles long. The people with views beyond the office files which lay on their desks then again began to agitate for railway communication with China. Government may have been shamed, or it may have been inspired to emulation, by the enterprise of the French, who were then beginning their Tongking-Yün-nan railway; or it may have been wearied of the protests of British advocates, with an underlying consciousness that the delimitation of the frontier between Burma and China was not very far off. At any rate, there was a sudden decision to begin a line towards China. There had been some perfunctory study of the ground beforehand, but there was not enough money available for proper surveys, and the line chosen, for very short-sighted reasons, was from Mandalay, the terminus of the trunk line, eastwards to, as was first intended, the Kunlông ferry, on the Salween River. There was a hazy sort of implication that the river might be crossed and the line continued the further short

distance to the Chinese frontier, and possibly even beyond; but there was a lamentable amount of rule-of-thumb policy about it, and a vague hope that it might save for us some of the South-West China trade. The line was not a good one from the point of view of benefiting the trade of our own Shan States. It entered them on the extreme northern limit, skirting the edge of the Kachin Hills, from which no trade is to be got, and passing through States which had been nearly depopulated during the civil wars that marked the reign of King Thibaw and the southward thrust of the Kachin hill tribesmen, who seized this opportunity to extend their territories. The alignment chosen was not even the best that might have been had, and it proved to be desperately expensive. When the line reached Lashio, the headquarters of the Northern Shan States, a matter of a hundred miles from the Kun-lông ferry, it was decided to stop there. It was the hebetudinous want of enterprise that had hampered Light and Raffles reappearing in a later generation. Advantage was taken of the fact that there had just been a great famine in India which affected 475,000 square miles, with a population of 60,000,000. This furnished an excuse; but it was a fatal mistake, and the result appears in the meagre figures of our trans-frontier trade with South-West China. M. Dautremer

does not exalt the superior courage and enterprise of his fellow-countrymen. He simply relates the facts, and he even suggests that we may retain some of the Yung-ch'ang trade, but that seems rather like a polite figure of speech.

Naturally the mercantile community of Rangoon has been by no means pleased at the prospect, and in response to several memorials the Government of India has had a survey made of a line to T'êng-yüeh, and has even carried out a flying survey beyond. But this is mere trifling. A line to T'êng-yüeh would no doubt pay, but to talk of carrying the line eastwards from there into Yün-nan is either due to pitiable ignorance or is consummate audacity from a Government which has declared that the extension of the railway from Lashio to Kun-lông is much too great to be undertaken by any but those afflicted with midsummer madness. In any case, the offer is very much like a rich uncle who is asked to get a favourite niece a *bonbonnière*, silk and hand-painted, or preferably silver, and puts her off with a couple of bananas or a water-ice instead. There is, no doubt, only a limited amount of money available for railway extension, but it is poor policy to spend this on a railway which would end against something like a blank wall, and at the best would retain for us only a half or a third of the Yung-ch'ang trade and none

whatever of the country to the east of it. T'êng-yüeh, as a railway terminus in Yün-nan, would be no better than Bencoolen was as regards Malaya.

The opening up of the Shan country farther south by the Southern Shan States railway offers much better prospects. Those who ordered the construction of the Mandalay-Kun-lông railway would have been much better advised if they had spent a little more time and money on the preliminary examination of the country. It seems beyond dispute that there would then have been no reversing stations east of Mandalay and no Gôkteik bridge, but the Southern Shan States line would have been begun thirteen or fourteen years earlier, and it would have been paying long before now, besides probably having many miles open to traffic far beyond the terminus at present contemplated.

There is, no doubt, the spectre of the Brobdingnagian furrows that run southwards from the eastern end of the Himalayas, but there seems no valid reason why we should not utilize the water power which is at our disposal, as other much less pretentious countries have done. Practically in the middle of the great plain which runs south from a little way below Lashio to not far off the Karen-ni border are the Tēng Falls. The Tēng is a river bigger than the

Thames, and at a point in the Kēng-tawng State it falls bodily over cliffs considerably more than three hundred feet high. The volume of water is much greater than that which serves to drive the turbines at the Niagara Falls power-station. Electric power makes light of gradients. The initial cost of the railway would probably be greater, though even that is by no means certain, because the mileage would be very considerably less. The bridging of the Salween would not be an easy matter, but, on the other hand, the Mèhkawng would be crossed at a point where its banks are as easy as those of the Red River bridge at Hanoi, and there is no reason to suppose that the foundations would be any more difficult at Chieng Hung than they were at the Tongking capital.

The advantage of entering Yün-nan from the Ssumao neighbourhood would be that we should have before us probably several alternative routes northward to all parts of Yün-nan. There have been no surveys by railway experts in this direction, but it certainly seems to be worth while making them. The trade with South-West China is not very great, but it is very promising. Our share of it is dwindling, and is certain to fall away still further unless we make some sort of an effort. Moreover, in doing so we should develop our own Shan States. The trade with

them has grown from practically nothing to a quite creditable sum in the last quarter-century, but it is nothing like what it might be and what it should be if there were anything better than mediæval means of transport. The Shan States cannot sell the greater part of their products because it costs too much to take them down to the railway. The intermediate traffic would very soon justify the capital expenditure, and by the time the trunk line got to China the reformed Government there will no doubt have constructed the Yangtze railway with extensions beyond into Yün-nan. There would therefore be a trans-Asiatic railway to look forward to as a competitor with the trans-Siberian.

That, however, is a very long way to look ahead, but in the meantime not only the Shan States, but also Burma and India itself, would greatly benefit. What India cannot be brought to understand is that any large expenditure in Burma would be amply repaid, and, in fact, would be a most excellent investment. M. Dautremer is kind enough to call the province a model possession, and he has a great deal of praise for its management. But, as a matter of bitter fact, the administrative view is that of the parish beadle and the enterprise that of the country carrier with a light cart instead of a motor-van.

If we want to see what commercial instinct can do, we have only to look at the Federated Malay States. If we want to see what reasoned intelligence would dictate, we should consider the progress of Kiaochao. Germany has made that colony—it really is a colony—as fair a place to look at as Saigon, or Hanoi, or Dairen (*alias* Dalny), but also a centre of business which has nothing to learn from Rangoon. It has done more than that. It has placed it in communication with the interior, so that in no great time Kiaochao may look forward to securing the greater part of the trade of North-Eastern China. Germany has done for a *Hinterland* what in twice the space of time we have not done for our own territory, to say nothing of Yün-nan and Ssu-ch'uan. We are accustomed to laugh at the drill-sergeant, parade-ground methods of German colonial administrators, but, to tell the truth, we are not much better. Instead of the rule of the garrison town, we have adopted the procedure of the babu, coloured or white.

M. Dautremer has called attention to the Government competition which he thinks has greatly injured the Burma teak trade, but this is a trifle compared with the way in which we thwart the efforts to develop the minerals of the country. Burma is probably at least as rich in minerals as the Federated Malay States, but the

policy adopted in the two areas is vastly different. Tin-mining has been known in Malaya since the time of the Phœnicians, but it never was of any great importance until the control of the country was taken over by British administrators. Now Malaya is the great source of tin supply for the world. This is practically entirely due to the enterprise of the Federated Government. When the country was opened out it was considered quite as important to make roads for the use of the tin-miners as for the purposes of administration. Everything was done to encourage the introduction of capital into the country, and the working of the mines with the aid of scientific machinery, in place of the old holes in the ground dug by Chinamen, soon led to results which can only be characterized as extraordinary. There is great hope of reducing the cost of hydraulic plant and underground working by utilizing water-power to produce electricity. The old burdensome tin export duty of the Malay sultans has been altered in incidence though adopted in principle, and the result is the phenomenal prosperity which has enabled these chiefs to present a super-*Dreadnought* to the Empire.

In Burma it has been very different. The mining rules, which are those applying to the whole Indian Empire, seem expressly designed to keep away capital. Prospecting allowances

are not to be had without irritating formalities and wearisome delays. The Federated Malay States Government appointed a man of established reputation to conduct a scientific survey of the country. The Geological Survey of India has detailed a man now and then to investigate, for a month or two at a time, discoveries made by independent investigators, but the work done has been perfunctory and cannot be called by any other name than "scrappy." For the extraction of minerals the one thing required is the existence of reasonably good roads, and practically nothing has been done in this direction. Even the results of the irrigation systems have been deprived of half their value for the want of roads which could be used by laden carts for something more than three or four months in the year. The Burma Ruby Mines Company has been crippled, first by the usurious demands made from it by Government and then by the want of a road to bring up scientific mining-plant. The Burma Mines Company had to build itself a private line before it could get out the ore which is now promising to convert the sorry Mandalay-Lashio Railway into something like a line which pays its way. The Mawchi Tin and Wolfram Company has had to struggle with the difficulties of a desperately inaccessible country, and has been left to find out for itself the best

line of exit for the output which will yet make its name famous in the mining world and add substantially to the revenues of the province.

The Malay rulers had an interest in the developing of their countries, and they were able to give valuable information to men with money to invest. Our Government has claimed to inherit from the Burmese kings the right to everything under the ground. Mining industry can only benefit Shan Sawbwas and natives indirectly, and therefore they take no interest in the work of prospectors. If they had inducements they would be able to do much to hasten on the mining industry, which in the end must benefit Burma as much as it has Malaya. Everything, in fact, seems expressly designed to drive off capital, and without very considerable capital nothing can be done in a country which for want of roads is a simple unprofitable and inaccessible wilderness. Great sums are paid every year for the importation of wheat for the rations of the native regiments. Yet twenty years ago it was proved that the Shan States could grow wheat to any required amount; but it could not be got out of the country at a price to compete with the inferior Indian wheat. In the same way potatoes are imported for sale in Rangoon, while crops are left to rot in the ground in the Myelat because it often does not pay to dig them up.

Introduction

Burma may be a model possession from the way in which it is administered, as if it were a small allotment, but it is sadly deficient in the enterprise which knows how to make the best use of its resources. Any money spent on Burma would be a profitable investment, but Burma is not allowed that money.

Burma under British Rule

CHAPTER I

EARLY HISTORY OF BURMA

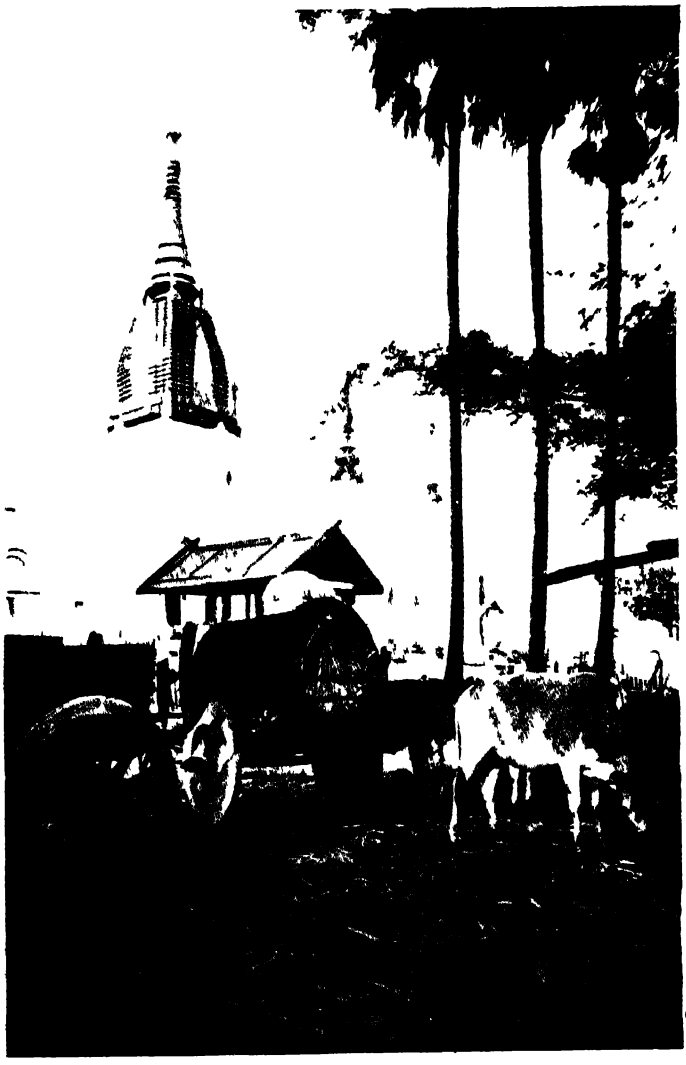
I. The beginnings of Burma. II. The Burmese kings. III. Alaungpaya. IV. First friction with the English. V. The first war. VI. New grounds of complaint for the English. VII. Conclusion.

I. EVERYTHING seems to point to the fact that the Burmese came southwards from Tibet to the basin of the Irrawaddy and settled there, at the same time amalgamating with other immigrants who came direct from India. Thus the Burman is a cross between the Mongol and the Aryan, and the first kings of Burma given in the lists of the Maha Yazawin, the Book of National Annals, all have Hindu names. These kings are, however, all legendary, and details about them are lost in the night of time. The first reasonably accurate history is not earlier than about 483 B.C., and it treats of the Burmese kings who reigned at Tharekettara, the Prome of

modern days, and at Pagān, which now only exists in its ruins.

II. Tharekettara does not quite correspond with the modern Prome. The ancient city site is really some miles east of the modern port of call on the Irrawaddy. It ceased to be a capital in 108 A.D., and Pagān became the residence of the princes of Burma from this date and continued to be so until 1279. In that year began the invasions of the Tai, commonly called Shans in Burma, who came from the high tablelands of Yün-nan, whence they were driven by the Chinese. They conquered Burma and established a Tai dynasty in Pagān, from which they moved first to Myinsaing and Panya and afterwards to Sagaing (1298-1364). In the latter year King Thadominbya, whose father was a Burman, while his mother was a Shan, founded the famous city of Ava. It was situated in the great Myohaung plain, to the south of the present Mandalay, and of all its glories there now only remain here and there a few ruins, whose crumbling bricks barely show through the rank vegetation of the tropics, and of all its multitudes only a few communities of monks with no companions but the cobras and the pythons.

This capital of Ava did not long remain in the occupation of the same dynasty. Burmese and Shan usurpers took possession of it at different



A PAGODA AT PAGĀN

periods, and the capital of the kingdom was moved back to Pagān in 1613. In 1629 again, however, Ava became the capital, and eight kings in succession reigned there until 1751, when the monarch who reigned under the title of Mahadhamma Rajadipati was seized by a rebellious army and carried off to Pegu, where he was beheaded.

This was the time when there arose an officer, full of energy and of remarkable mental vigour, who determined to put an end to the anarchy which had so long prevailed and left it a prey to continual struggles for the possession of the throne, torn and ravaged by the adherents of the various pretenders. This man was Alaungpaya. He conquered all the rebels, re-established order in the Empire, and founded a dynasty which lasted until the country was annexed by Great Britain. Alaungpaya is the national hero of Burma, and his life-story is wrapped up in legends such as Orientals delight in to enhance the prestige and renown of their great men.

Alaungpaya was succeeded by Naungdawgyi, who made Sagaing his capital, in 1760. There succeeded him Sinbyushin, 1763, who removed the seat of government back to Ava; Singu Min, 1775; Maung Maung, 1781, a boy of eighteen, who reigned only eleven days; Badôn

Min, 1781, better known as Bodawpaya, who again removed the capital across the Dôktawadi River to Amarapura, opposite Sagaing, where he built an entirely new city; Sagaing Min, 1819, more commonly known as Bagyidaw, who moved the capital back to Ava; Tharawadi Min, 1837, who returned to Amarapura; Pagān Min, 1846, who retained Amarapura as his capital; and Mindôn Min, who in 1853 built the entirely new capital of Mandalay.

III. It took Alaungpaya seven years to re-establish the kingdom, conquering the revolted and struggling against the efforts of the Portuguese, the Dutch, and afterwards of the French and the English, who, one after another, came to establish themselves in different ports. At times they supported Alaungpaya against his enemies, at other times they stirred these up against the King and excited insurrections which added to the disorder. Nevertheless, the great King and his successors triumphed over all difficulties and, after having engaged in new struggles with the Siamese and the Chinese, spread the Burman Empire over the country between the Bay of Bengal as far as Siam and China from west to east, and between the Mergui Archipelago up to Assam from south to north. The present capital of Burma, Rangoon (in Burmese *Yaṇgôn*, the war ended), was founded

in 1755 by Alaungpaya to commemorate the defeat of the rebels of Pegu, and from that time it steadily grew to become the chief port and the chief commercial centre of the country.

The Burma Empire had been very long in becoming united, for it never was so until the reign of Alaungpaya—that is to say, in the middle of the eighteenth century. Notwithstanding that this union was the result of such prolonged efforts, it was not destined to remain long independent, for it had on the west European neighbours, who were always ready to support their own interests with decided vigour.

IV. The first friction arose in 1794, as the result of a series of events which were to entangle the Burmese in conflicts very different in their seriousness from those in which they had been involved up till then. Luckily for them these early skirmishes were not followed up. The trade on the Arakan coast had for many years suffered from the attacks of pirates, and even the royal junks loaded with the proceeds of the Customs had been attacked by these filibusters. These gentry, after their raids, made all haste to retreat and to hide their booty on the other side of the Nâf River, in the territory of Chittagong, and therefore under the British flag. When the King of Burma heard of this he disdained to make references to the British

Government. He simply sent orders that an army should march into Chittagong and should bring back the pirate chiefs as prisoners. The English Governor was taken by surprise by this act of aggression, but he sent a detachment, supported by artillery, to drive back the Burmese. The Burmese General, Nandakyawzaw, entered into negotiations with Major-General Erskine, who commanded the British troops, and an arrangement was arrived at without the shedding of blood. Three of the pirate chiefs were handed over to the Burmese, who promptly beheaded two of them. As a result of this incident Sir John Shore, who was then Governor-General of India, thought it was desirable to get into communication with so energetic a neighbour, and in 1795 he sent Captain Symes to the Burmese Court, with the title of Plenipotentiary. Captain Symes met with a more or less courteous reception, but he did not succeed in concluding any sort of a treaty which definitely established rights of trade and commerce. In spite of this, and since they wanted to maintain friendly relations, the Government of India sent Captain Hiram Cox to Rangoon with orders to stay there. After a good many ineffectual efforts to get some trading concessions from King Bodawpaya, he came to the conclusion that his dignity and that of his country

called upon him to retire. He met with no sort of goodwill, or even so much as attention, and eventually left without even getting a reply to the Governor-General's letter.

All this time the frontiers of Arakan and Chittagong were the scene of events like those of 1793 and 1794. Once more in 1797-8 thousands of Arakanese migrated over to Chittagong, and once again Burmese troops marched into Chittagong territory, where they had a brush with a police battalion of the district. But King Bodawpaya had designs on Assam and did not want to go too far, so he recalled the troops and sent an agent to Calcutta to enter into negotiations. He required that all Arakanese should be expelled from British territory. The Marquis of Wellington was Governor-General of India at this time, and he replied that any Arakanese who returned to their former province in order to plunder there would be severely punished. This assurance was not nearly so much as Bodawpaya wanted, and he threatened to invade India if his demands were not conceded and all plunderers forthwith surrendered. The challenge was not accepted on account of internal troubles in India at the time, but Colonel Symes was again sent on a mission to the King with instructions to procure the withdrawal of the menace and to draw up a treaty in due form.

When he reached Mingôn, where the King was in residence, Colonel Symes was contumeliously treated, and the only thing he effected was to obtain a verbal disavowal, through the Governor of Pegu, of the offensive letter threatening invasion.

Still the Indian Government retained its patience and perseverance and was not discouraged. In the following year Captain Canning was sent to Rangoon, but was so extremely ill received by the authorities there that it was not long before he left. A few years later he came back again with a letter and presents from the Governor-General. This time he was fairly well treated by Bodawpaya, but he got no royal reply to the letter he brought. There certainly was a reply, but it came from the King's Ministers. Nevertheless, the relations, though they were distinctly chilly, did not degenerate into hostility, until once more the Arakanese raised trouble on the frontier. There was a dacoit leader called Hkyin Byan, who plundered a number of Burmese villages and then made off, as usual, into Chittagong territory. There he gathered round him a considerable band of followers and set out for the definite purpose of dacoiting on the Arakan side. It must be admitted that the Burmese Government had reasonable cause of complaint, for the

British authorities were both weak and lethargic. Captain Canning was again sent to Burma to disavow any idea of sympathy or complicity in this fresh raid, which, it was represented, was entered upon quite suddenly and secretly. The Viceroy of Pegu accepted his explanations and professed himself satisfied. All this while, however, Hkyin Byan was still in British territory, and the Governor of Arakan marched with a Burmese force to the border to demand his surrender. The British Commissioner of Chittagong entered into negotiations with him and succeeded in effecting the withdrawal of the Burmese troops from the frontier.

When he heard this Bodawpaya was furious, and, since he was convinced that the British Government was both impotent and faithless, he made an attempt to seize Captain Canning with the object of keeping him as a hostage to be surrendered in exchange for the Arakan rebels. Canning, however, was apparently suspicious that something of the kind was intended and went to live on board his ship, whence he could not be tempted to accept invitations to proceed to the Burmese Court. After a time, when he was convinced that there was no chance of any settlement, he left Rangoon altogether.

The year after Burmese ambassadors were sent to Calcutta to demand the surrender of the

Arakan revolters. At the same time Bodawpaya sent a number of monks to India, ostensibly to collect Buddhistic texts, but really for the purpose of stirring up the Indian rajahs to rise against the British. In this way Patna, Lucknow, Delhi, and Benares were visited by the Amarapura monks, and it was long before the Indian Government had any idea of their political designs.

In spite of the Burmese mission to Calcutta, Arakan was again the cause of trouble. The dacoit Hkyin Byan again crossed the frontier, either through British carelessness or British complicity. However, not long afterwards he died, just at the time when the Burmese were about to conclude an alliance with some of the Indian chiefs against the Company's Government. An abrupt end was put to Burmese hopes by the receipt of direct orders to Lord Hastings to deal energetically with all those who opposed British rule.

Upon this the Burmese diverted their ambitions in the direction of Assam, Manipur, and the territories which lay on the borders of Burma and British India. Bodawpaya was dead, but his successor, Sagaing Min, or Bagyidaw as he is more commonly known, carried on an intermittent war in this neighbourhood, which led in 1822 to a quarrel which brought on British

intervention. It came about in this way: Great numbers of Assamese took refuge in British territory in order to escape from the miseries of their own country. They were immediately followed up by a considerable Burmese military force with orders to bring them back again. The English authorities, however, gave assurances that the strictest measures would be taken to ensure that the fugitives should undertake no hostile measures, and this appeared to satisfy the Burmese General, Maha Bandula. At any rate, he set out to march back to the capital, which was then Ava, with the greater part of the troops. His associate in the command, Maha Thelawa, was left behind in Assam with two thousand men and the title of Governor. It was fortunate for the British that at this time the whole of the Burmese King's attention was directed towards a projected expedition against Siam, a favourite object of the ambition of many of his predecessors. If it had not been for this, as is clear enough from the admissions of British officials at the time, it is certain that Burmese troops, under the celebrated Bandula, would have advanced, and in the numbers which they then had, would have gone far beyond the frontier into the interior of the country, for the Honourable East India Company was quite unable at the time to muster enough troops to resist an

invasion. It does not appear that the Siam campaign had the results which the King expected of it. The King of Cochin-China was to have co-operated with his brother of Ava's forces, but nothing resulted, for the frontiers of the two kingdoms remained the same as before when, in 1825, the rupture came about between Burma and British India.

As we have seen, the Burmese had shown their jealousy and irritation by several acts of provocation, indirect in the case of Arakan and frankly hostile in the case of Assam. The next step came in September, 1823, when a body of their troops, about a thousand strong, took forcible possession of the island of Shapuri, at the mouth of the Nâf River, the most southerly point of the British province of Chittagong. Some sepoys were killed and wounded in this affair. The Burmese maintained that they had entire sovereignty over the mouth of the Nâf River and therefore of the island, and probably believed that they had right on their side. They were satisfied, at any rate, with the expulsion of the sepoy guard and proceeded to hoist their flag and then left the island. British troops proceeded to reoccupy the island in the month of November following; explanations were demanded and negotiations proposed for the definite delimitation of the frontier. In January, 1824,

however, the armed intervention of the Burmese in Cachar, a small State between Assam and Manipur, over the question of a petty raja, Chandra Kanta, brought about a definitive rupture and made war inevitable. Thus began the first Anglo-Burma war.

V. On the 5th March, 1824, Lord Amherst, the Governor-General of India, issued a proclamation announcing that the Court of Ava was at war with Great Britain, and calling upon all subjects of his Britannic Majesty, whether Europeans or natives, to abstain from any communications with the subjects of the Emperor of Burma until satisfaction had been obtained.

The war which the English Government had entered upon was a serious one, more arduous than perhaps had been anticipated. The Burmese had determined to resist, and as it proved, they defended themselves with the greatest possible vigour. Moreover, the English were to find out that they had the most scanty details about the character of the country, its roads, and more especially the supplies that could be obtained in it. There had been no study of a plan of campaign. However, on the 10th May, General Sir Archibald Campbell and Commodore Grant arrived before Rangoon. Exactly a month passed before an attack was made, and on the 10th June the forts of Kemmendine were carried

by assault, and Rangoon fell immediately into the hands of the English.

Nevertheless, the state of the British troops was pitiable. Neither meat nor vegetables were to be had in Rangoon, and everything had to be brought from Bengal or Madras. Moreover, the rains had set in, and sickness broke out among the soldiery to such an extent that the camp hospitals were crowded with sick, who could not be attended to, because both the medical staff and the medicines were inadequate.

While Sir Archibald Campbell occupied Rangoon, Colonel Godwin took possession of Martaban, Tavoy, and Mergui, and Lieutenant-Colonel Mallett entered Pegu.

At the beginning of 1825 the Burmese troops were driven from Assam, Manipur, Cachar, and Arakan; and Pegu, Martaban, Tavoy, and Mergui were in the hands of the English. Nevertheless the Court of Ava would not give way, and Sir Archibald Campbell marched upon Toungoo, Prome, and Pagān, and it was not till he reached Yandabu, four days' march from Ava, that the King decided to accept the proposals of the British Envoys. On the 24th February, 1826, a treaty was signed and an immediate payment of twenty-five thousand gold rupees was made. A detachment was left in Rangoon to hold it until the payment of the war

indemnity, which mounted up to a million rupees. Arakan, Assam, Cachar, Manipur fell to the British, as well as Tavoy, Tenasserim, Mergui, and Maulmein. The British losses in men and money were considerable. The expedition cost five millions sterling, and sickness proved far more deadly than the bullets of the enemy. The total number of troops who landed after the first action in Rangoon was 3,586 men, without counting the officers. The reinforcements that were sent came to about the same total. Out of these 3,115 died, and of these only 150 were killed in action. Out of 150 officers, 16 fell in action and 45 died of disease. The losses in Arakan were especially severe. The 44th and 54th Regiments lost 595 men out of a strength of 1,004 in the space of eight months.

The British Government did not send a Resident to Ava till four years after the Treaty of Yandabu. In 1830 Major Burney was deputed to be permanent Envoy at the Burmese capital. His duties were to open out postal communication with the newly acquired provinces of Arakan and Tenasserim; to hasten the payment of the indemnity due from the Burmese; to encourage British trade; to watch the Burmese Government, and collect all manner of information about the Court. He was also instructed to ask the Burmese what sum they were prepared to give

for the retrocession of Tenasserim. The Council of Directors of the East India Company looked upon this territory as of no value to them.

Major Burney arrived in Ava on the 23rd April, and was so ill-received that on the 17th of May he demanded to be supplied with boats to enable him to leave the capital. However, there was an improvement in the relations, and on the 17th June, 1830, he was received in audience by the King, and gradually amicable relations grew up between him and the Court. The Burmese certainly strove to obtain a postponement of the payment of the indemnity; they raised question after question in the matter of the delimitation of Martaban and Maulmein; they did their best to get rid of the permanent residence of a British officer, and maintained that an embassy every ten years would be enough to meet the requirements of the situation. They even went to the length of sending a special mission to Calcutta to set forth their views, but they met with no success.

On the 22nd April, 1832, Major Burney fell ill and had to leave Ava. He left Mr. Blundell in charge until October, when that gentleman was replaced by Captain MacFarquhar, who in his turn fell ill and had to leave in September, 1833. He was succeeded in November by Major Burney, who had recovered his health and took

up his old post. During this period there were disturbances at the Court of Amarapura, whither the Burmese capital had been moved, and the Tharawadi prince deposed his brother Bagyidaw, who had become mentally affected, and assumed the throne himself.

In 1838 the Government of India sent Colonel Benson to be Resident. He brought very valuable presents for the King with him. King Tharawadi had, however, bluntly told Major Burney that he was perfectly determined to receive no representative of the Governor-General, and that he did not consider himself as in any way bound by the Treaty concluded with his brother, the deposed Bagyidaw.

Thus it happened that though Colonel Benson reached Rangoon in July, it was not till the end of August that he was able to get boats to take him up the river along with Captain MacLeod, his assistant. In addition to this, the two officers were treated with no consideration during the journey to Amarapura. At Prome, Colonel Benson even received an intimation that it was useless for him to come any farther. In spite of this, and in spite of all the advice that was given him, he went on to Amarapura, and was there assigned, as a residence, a half-inundated house standing on a sandbank, and was forbidden to have any communications with the

town. More than this, the population were directly ordered to have no relations whatever with the Envoy and his followers. The King announced that he would not receive him, because he refused to recognize the Treaty of Yandabu, signed by his brother, but said he did not mind tolerating his presence at Amarapura as a simple private individual. After vain efforts to carry out his mission, Colonel Benson had to leave the capital, but he left behind Captain MacLeod to occupy the Residency.

In 1841 Tharawadi went to Rangoon with a large retinue and a considerable body of troops. The British Government had been kept fully informed as to the views and ideas of the usurper and of his declared intention not to consider himself as bound by the Treaty of Yandabu. The troops on the Arakan and Tenasserim frontiers were therefore reinforced. But in spite of his rhodomontade Tharawadi had a vivid recollection of the vain struggles of the Burmese against the troops of Sir Archibald Campbell, and he was too clear-sighted to attempt again to measure arms with the British troops. So after staying some time in Rangoon, where he repaired and embellished the Shwe Dagôn Pagoda, besides having a big bell cast for it, he tranquilly went back to his capital. The last years of his life were clouded by madness and

insane cruelty. His savagery was so great that his son, the Prince of Prome, had him confined, but Tharawadi escaped and the Prince had to fly to the Shan States. However, the King soon became absolutely demented, and another son, the Prince of Tarôkmaw, again had Tharawadi put under restraint, and this time he remained practically a prisoner until his death, in 1846. His brother Bagyidaw, whom he had dethroned, went to his grave only one year earlier.

His eldest son, the Pagān Prince, proclaimed himself his successor, and to rid himself of all rivals he caused his two brothers and all their households to be put to death. There were several hundreds of them.

The new King had not the mental capacity of his father. He was even wanting in the most ordinary intelligence, and cared for nothing but mains of cocks, games, and infantile amusements, and he left the reins of state to two Mussulmans. These two managed affairs in such a way that they soon raised the whole country against them, and Pagān Min was forced to have them beheaded.

VI. While all these incidents were happening in Amarapura, the various governors of provinces faithfully followed the example of their masters. As long as he lived King Tharawadi had steadily maintained that treaties concluded with his pre-

decessors had no binding force on him. Consequently the Governors of Pegu, one after the other, from 1837 onwards, levied continual exactions on British traders. Year after year complaint after complaint went to the Government of India, which appeared to take no notice of them whatever. As a matter of fact, there was no Resident at Amarapura, and no Agent in Rangoon to support these petitions. However, in 1851, two particularly grave cases were reported. They were laid before Lord Dalhousie himself, and he did not hesitate to take vigorous action.

The Governor at Rangoon at this time was a man named Maung Ôk. He had been appointed in 1846, and he was notorious for his exactions and his cruelty, not merely towards Europeans but towards Burmans also.

In July, 1851, Sheppard, a British subject and master of the British ship *Monarch,* was arrested by the Burmese police and taken before Maung Ôk, who threw him into prison for a crime which he had not committed—the murder of his pilot. Sheppard was not released until heavy bail had been furnished by his friends. Finally he was ordered to pay a fine of Rs. 410. Sheppard was then arrested a second time on a false accusation by the order of the Governor. He was acquitted

by an arbitration court constituted by the Governor himself; but nevertheless he was re-arrested the next day, put in prison, and fined Rs. 500. The whole crew of his ship were thrown into prison, ill-treated, beaten, and condemned to a series of fines. Finally, the *Monarch* was refused clearance papers to enable her to leave the port, except on payment of a further sum of Rs. 50. Sheppard appealed to the British authorities in Tenasserim, and filed a claim for Rs. 10,000 damages.

The second case was as follows: In August, 1851, the three-masted barque *Champion*, Captain Lewis, arrived in Rangoon. An absurd accusation was brought against Lewis by two Bengali coolies, who had come on board as stowaways, and he was fined Rs. 100. Seven of his crew, all of them Bengalis, deserted, and before he could get them back again he had to pay Rs. 250, and when this was paid only four were given up to him. Then Lewis himself was accused of murder and was threatened with being put in chains and sent as a prisoner to Amarapura, unless he paid Rs. 200. He was released, but arrested again the next day, and only got free by paying Rs. 280. Two or three days later one of his quartermasters was arrested, and port clearance was refused except on payment of

Rs. 200. Lewis set off to Calcutta to lodge his complaint against the Burmese Government.

When Lord Dalhousie heard the details he gave immediate instructions to Commodore Lambert, then in Calcutta, to proceed to Rangoon in H.M.S. *Fox*, along with the *Serpent* and the *Hermes*, followed immediately by the two steamers *Tenasserim* and *Proserpine*, to which was added the *Phlegethon*. The instructions given to the Commodore were to address a note to the Governor of Rangoon, giving a brief summary of the two complaints, pointing out that they constituted a grave infraction of the treaty existing between Burma and Great Britain, that the latter Power could not disregard such defiance of treaties, and finally demanding a money indemnity for the two ship-masters, Sheppard and Lewis.

In the event of the Governor of Rangoon refusing to comply, the Commodore was to dispatch to the Amarapura Court a letter from the Governor-General of India; but he was instructed on no account to begin hostilities before he received definite orders from Calcutta.

The letter of the Governor-General to the King of Burma was dated the 17th November, 1851, and insisted on the recall of Maung Ôk, the Governor of Rangoon, unless he complied with the British demands. When the little

squadron arrived in Rangoon, Maung Ôk sent Mr. Spears, a resident in Rangoon, to ask the meaning of this visit. He was told that the Commodore was instructed to hand Maung Ôk a letter, issued by the Governor-General of India, and that he requested that a date should be fixed for the delivery of this letter. When Maung Ôk heard this he issued an order that no Europeans were to have communications with the British ships under pain of death, and he fixed a day for the reception of the Commodore. This was to be at the office of the Customs House, and not at his residence, which was too far away, two miles from the river, but he would come himself to receive the letter. Before the day fixed the British residents of Rangoon addressed a petition to the Commodore, setting forth their various grievances, and the night before the date fixed Maung Ôk announced that the meeting was after all to be at his own house. He had resolved to seize the persons of the officers who brought the Calcutta letter and to hold them as hostages for the departure of the squadron from Burma waters. Commodore Lambert got wind of this scheme and broke off all relations with Maung Ôk. He sent off the Governor-General's letter to Amarapura and intimated that a reply must be received in thirty-five days.

The reply duly came within the specified time, and the Court announced that the Governor of Rangoon was to be removed, and promised favourable consideration of the cases of Messrs. Sheppard and Lewis. Everything therefore seemed to be going on well, and both the Commodore and the Governor-General looked for a satisfactory end to the case.

But the Court of Amarapura, in spite of the lesson it had already had, was resolved to try again the arbitrament of arms with the English. The new Governor of Rangoon, Maung Môn, arrived there with thirty thousand men at his back, and at the same time Maung Nyo, with twenty thousand men, occupied Bassein, while twenty thousand more, under Maung Pwa, marched on Martaban. Meanwhile Lord Dalhousie, in order to be ready for any eventuality, gave orders to the Commodore to blockade Rangoon if the demands made were not complied with. The new Governor, Maung Môn, had announced that he would carry out the policy of his predecessor in everything. He did not inform the Commodore of his assumption of office, and he menaced with the death penalty any European who had communication with the British squadron. This could not be left unnoticed, and the British took advantage of the absurdly hostile attitude of the Burmese. Com-

modore Lambert began by sending a deputation to the Governor, under the orders of Commandant Fishbourne and Captain Latter. The deputation numbered fifty men, and was on all points in accordance with Article VII. of the Treaty of Yandabu. Not only did no one receive the party, but after it had been made to wait, in the blazing heat of the sun, before the Governor's palace, a message was sent asking it to go away because the Governor was asleep.

Upon this the Commodore declared the blockade of the port of Rangoon, seized a Royal warboat which was lying in the river, and cleared his ships for action. All the river forts were destroyed, the British traders left Rangoon and went on board the warships, and Commodore Lambert went to Calcutta to give an exact account of what had been done and to receive new instructions. Lord Dalhousie still hoped for an amicable settlement, and while he reinforced the garrisons of Martaban and Tenasserim, at the same time sent another letter to the Burmese Government. The Court, on its part, wanted to gain time, and while Commodore Lambert was actually in Calcutta sent a letter of complaint to the Governor-General, alleging that the British officers were alone responsible for all the regrettable things that had happened.

Lord Dalhousie resolved to send troops to Rangoon, but at the same time he gave the King an opportunity, if he had been willing to take it, of avoiding the war. On the 18th February, 1852, he sent his last memorandum in somewhat these terms :—

" It still depends on your Majesty to avert the evils of war ; but to do this it is necessary completely to disavow the actions of your servants in Rangoon, and to satisfy the following claims of my Government—

" Your Majesty will be pleased to disavow the proceedings of the Governor of Rangoon, and will express, through your Ministers, your regret to Captain Fishbourne and the officers who accompanied him when they were insulted in Rangoon on the 6th January last.

" In satisfaction of the claims of Messrs. Sheppard and Lewis, as compensation for the losses sustained by the British residents of Rangoon, in consideration of the expenditure of the Government of India under the possibility of the outbreak of war, your Majesty will pay the sum of one million rupees to the Government of India.

" Your Majesty will give to the Governor of Rangoon the necessary orders to enable a British Agent to be received and treated with respect by the Burmese authorities in Rangoon,

conformably to Article VII. of the Treaty of Yandabu.

"The present Governor of Rangoon must be replaced. All relations with him have become impossible.

"If your Majesty accepts these conditions and if they are complied with before the 1st April, all hostile demonstrations will cease, peace will be restored, and your Royal boat will be returned.

"If, on the other hand, these conditions are not accepted and, if your Majesty continues to trifle with the representations of my Government, I shall have no alternative before me but war."

No Burmese King had ever before received so plain-spoken a letter. The amazement and the fury of the Court were exceedingly great. In spite of this, they were not yet convinced that Great Britain meant war. The Court had allowed itself to be persuaded by the American missionaries and by the Armenian Sarkies that the Government of India was ruined by the first war in 1825, and that it would not venture again to send an expedition to Rangoon. For this reason the preparations for resistance were steadily hurried on in order to be ready for a possible attack. There were, however, grave doubts whether this attack would be carried out. They thought that the English talked very bravely, but would not back up their words with cannon-balls.

Lord Dalhousie, on his side, had not waited for the King's reply to prepare for the struggle, and everything was seen to so that hostilities might commence on the 1st April. When he found that the Court sent no reply to his letter, and instead of replying was making ready to resist, he gave orders that hostilities were to begin on the 5th April. General Godwin, who had already seen service in Burma as an officer in the last war, was put in command. He was given plenary powers, and was instructed before commencing hostilities to satisfy himself that there was no letter for Lord Dalhousie from the King, and that his Majesty had not accepted the conditions laid before him.

No reply came within the prescribed time, and hostilities were begun by the capture of Martaban, which was taken very easily by a force of fourteen hundred bayonets, protected and assisted by the fire of the ships of war. General Godwin left a garrison in possession and went with the ships to Rangoon, where all the positions held by the Burmese were bombarded and destroyed one after the other.

The troops landed on the 12th April, and after three days' fighting captured all the Burmese defences. They suffered seriously from the heat. Major Oakes died of sunstroke. Major Griffith met with the same fate and fell dead

from his charger. Lieutenant-Colonel Foord, General Warren, and Colonel St. Maur had to leave the fighting-line. Among the men great numbers succumbed to the heat, which is terrible in Rangoon in the month of April. The thermometer occasionally reaches the height of 43° C. (105° F.) in the shade, though this temperature is commoner in Mandalay than in Rangoon.

The Shwe Dagôn Pagoda dominates Rangoon, and a regular fort had been built round it. When this had fallen into British hands all resistance became futile. The Burmese army fled in disorder, and the Governor made a precipitate departure from the town. General Godwin continued his successful operations and took possession of Bassein and Pegu.

Lord Dalhousie was kept fully informed of all the military operations, and, after consultation with the Council, determined, no matter what the issue was, to permanently annex all Lower Burma, Martaban, and Rangoon, as far north as the northern boundaries of Pegu and Prome. In order to get a complete grasp of the situation he came himself to Rangoon and decided on the immediate attack of Prome and Pegu. The Burmese made a feeble attempt at resistance, and were very easily routed.

When news was received of the occupation

of Prome and Pegu the Governor-General considered that the time had arrived to announce the annexation of the province to the British Empire. On the 3rd December he appointed Captain Phayre (afterwards General Sir Arthur Phayre) Civil Commissioner, and gave him powers, in conjunction with General Godwin and Commodore Lambert, to enter into negotiations with the King of Burma. At the same time he gave him a letter to be dispatched to the King, as well as a proclamation to be issued to the people at whatever time seemed to be most opportune.

The proclamation was quite short. The grievances of the British Government were set forth, and then it was announced that the Province of Pegu, with Rangoon, Prome, and Martaban, had become British territory, and that any Burmese troops which might still be inside these limits were to withdraw forthwith. The draft Treaty with Burma contained four Articles :—

I. There is to be perpetual peace [the common formula] between the two nations ;

II. The Province of Pegu to be ceded to Great Britain ;

III. Trade and commerce to be free ;

IV. Ratification to take place immediately. (If this were not agreed to, and if the Court remained

hostile, the war was to be continued until the complete overthrow of the kingdom.)

The proclamation was issued on the 20th December, 1852.

Meanwhile a Palace revolution took place in Amarapura, and the Mindôn Prince was proclaimed King. He never signed the Treaty which ceded the Province of Pegu to the English, but he took care not to disturb them in the occupation of it, and on the 11th February Brigadier-General Steel took possession of Toungoo, the northernmost point of the new British province on the border of what remained of Independent Burma.

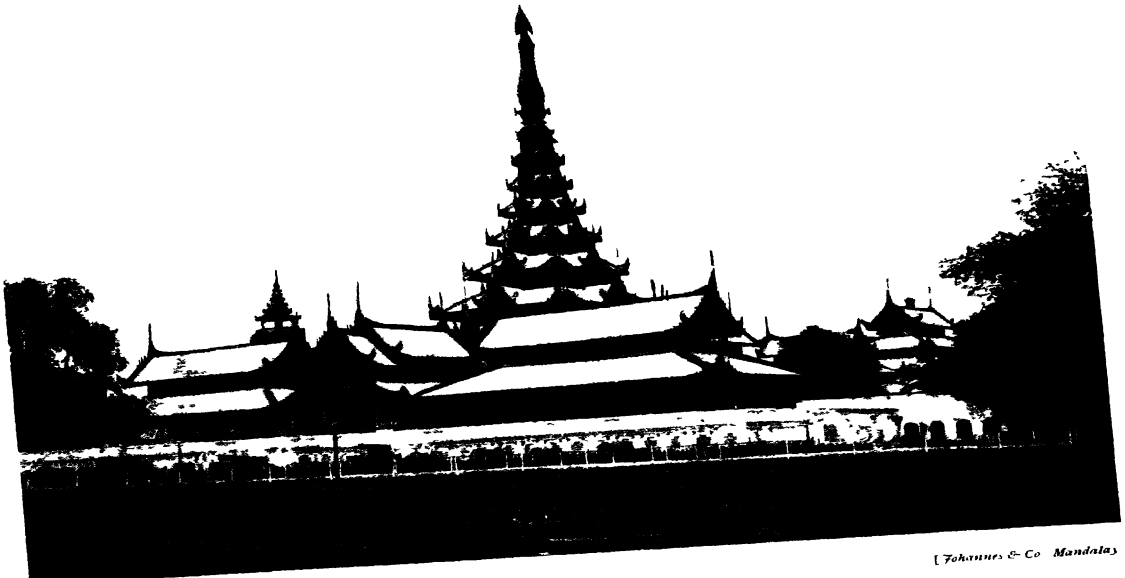
Thus, little by little, British India expanded towards the East. In the space of thirty years it had added Assam, Manipur, Tenasserim, Maulmein, Martaban, and Rangoon. It dominated all the sea coast from Calcutta to Singapore. It was absolute mistress of the sea from the Persian Gulf as far as Sumatra. What did it matter that there was left in the interior of Burma, on the upper waters of the Irrawaddy, a pious-minded King, who was wrapped up in his white elephants and his Buddhistic books, and who wanted nothing more than to be left at peace in the new capital which he had built himself and called Mandalay?

CHAPTER II

LAST YEARS OF NATIVE RULE

I. Reign of Mindôn. II. Death of Mindôn. III. The Bombay-Burma Corporation incident. IV. England contemplates annexation. V. French interludes—Final annexation and pacification. VI. The French and the Portuguese in Burma.

I. THROUGHOUT the reign of King Mindôn relations between Britain and Burma were quite cordial (1852–78). The King was an eminently peace-loving person, and was thoroughly devoted to Buddhistic good works. He did his best to keep peace with his neighbours, and throughout his reign British Envoys and merchants were welcomed at the Court and what remained of Independent Burma. Although his reign was not free from Court intrigues and the assassinations which were so frequent in the times of his predecessors, the people loved King Mindôn on account of the religious festivals which he celebrated with quite unusual pomp. Moreover, he gave abundant alms to the monks



[Photo] THE PALACE SPIRE, MANDALAY. [Johannes & Co Mandalay

with great regularity, and was quite a notable Buddhist.

The twenty-six years of his reign were a period of tranquillity such as Upper Burma had not known for long years. It was also a period of British commercial development, carried on with the most complete confidence.

II. This state of affairs was not destined to outlast the reign of King Mindôn. When he died, in 1878, no successor had been named, and there were several princes who might be considered to have the right to succeed. As the result of a plot organized by one of the queens, Prince Thibaw was chosen by the Great Council, and he ascended the throne a few days after his election, which had been decided on when King Mindôn's state became hopeless. Prince Thibaw was a person of no great power of will, but the Queen who had thrust him on the throne had plenty of ideas and abundant energy. She had married her daughter, the Supaya-lat, to Thibaw. The girl was as shrewd and as unscrupulous as her mother, and the dowager-Queen was convinced that she would be the real ruler of the country.

She had left her daughter out of her calculations. The Supaya-lat—which is a title, not a name, and means the "middle princess"—was clever, cruel, and arbitrary. She began the

scheme of getting rid of the other princes and their families, so as to have no more possible obstacles in her way. In February, 1879, therefore, she had all the princes who were brothers of the King put to death, and with them forty other persons. It was 1884, however, before she was able to carry out all her intended executions. She took advantage of the presence at Pondicherry of the Myingôn Prince, who, according to Western ideas of rights of succession, was the legitimate heir, as eldest son of King Mindôn, to accuse a great number of persons about the Court, as well as actual officials, of carrying on negotiations with him with a view of putting him on the throne of Burma. The unfortunates were cast into jail. There was a pretence of setting half of them free, but the soldiery were waiting at the prison, or the palace gates, to murder them. The rest were burnt alive in the prison itself. Besides these victims, all of whom were members of the Royal Family or of the ruling classes, great numbers of others were put to death. There was such a massacre at Mandalay that even the Burmese themselves were filled with horror. From that time on there were throughout all the kingdom signs of disaffection against the King, and the British began to consider whether it was possible to endure a neighbour who was so cruel and so unpopular.

III. They were all the more disposed to this attitude because of the extravagance of King Thibaw. He squandered money with both hands without troubling to inquire whether there was money in the treasury, and he impoverished the country by establishing a sort of royal lottery to raise funds. The country was ruined and the royal treasury remained empty. It was a question how it was to be filled. It was then that it occurred to the Taingda Mingyi, the Finance Minister, to get it out of the Bombay-Burma Trading Corporation. This firm had a contract from the King for the working of teak forests. The Corporation was accused of breaking its contract, and was condemned to pay a fine of Rs. 2,300,000 (£153,333) into the royal coffers. The Corporation appealed to the Government of India, which forthwith sent the following ultimatum to King Thibaw :—

" 1. The disputes between the Government of Burma and the Bombay-Burma Trading Corporation shall be submitted to arbitration by a joint Commission of British and Burmese officers.

" 2. A British Resident shall be stationed at the Burmese Court.

" 3. The external relations of Burma shall be controlled by the British Resident."

This was delivered in November, 1885.

King Thibaw sent a reply which seemed un-

satisfactory, and was, in fact, a flat defiance, and the extinction of the kingdom of Burma was decided on by the Governor-General in Council.

IV. The disappearance of what remained of Independent Burma had been contemplated for some years by the British authorities, and the quarrel over the question of the Bombay-Burma Corporation contract was merely a pretext. The real reason why Great Britain wanted to annex Upper Burma was this: In March, 1882, an official mission left Mandalay for Paris, with the object of entering into a treaty with the French Republic. Six High Court officials composed the mission, and went to France furnished with plenary powers and with a large supply of presents for the President of the Republic. This mission was not regarded with any favour by the British, all the more because there were already a number of Frenchmen settled in the Burmese capital, holding posts as engineers, financial advisers, silk-workers, heads of the police, military instructors, and so forth. From the time of this mission on it is evident that the Anglo-Indian Government made up its mind to annex Burma in order to get rid of all foreign influences. All it did was to bide its time and to choose its own moment, and this was furnished when the Bombay-Burma Trading Corporation question arose. In addition to other

reasons, moreover, a French consular agent had arrived in Mandalay in June, 1885. He was animated by quite excellent intentions, but had too blundering an activity. He proposed to King Thibaw the establishment of a Franco-Burmese Bank, the construction of railways, and even suggested a French Protectorate. These projects, and a good many others like them, got to the ears of Lord Dufferin, who was then Viceroy of India, and notwithstanding the serious difficulties there then were on the Afghan frontier, he did not hesitate to send the ultimatum summarized above. The expedition proved a mere promenade, and the British troops arrived in Mandalay on the 28th November, 1885. General Prendergast and Colonel Sladen entered the palace by the east gate and secured the person of King Thibaw without any resistance. The King, with his two wives and his little daughter, were sent to Rangoon, whence they were shipped to India, and still remain there at Ratnagiri.

V. The idea of the French agent in Mandalay to make Upper Burma an annexe of French Indo-China was clearly the idea of a patriot, and for this he deserves praise. At the same time, to carry out such an enterprise called for great discretion and for a still greater ability. But, granting that he had been successful, of

what use would this Protectorate have been to France, except to create very considerable anxieties and no reasonable results? What could France have done with a country into which she could only penetrate through the Shan-Lao States, while the English held the whole coast-line? It would have been absolute folly to enter on an adventure of this kind; and to make a short story of it, the French agent, with the most laudable possible intentions, did no more than hurry up matters for the British and hasten the annexation of what was left of the Kingdom of Burma.

The Treaty which he had signed with the King was immediately made known to the English through the zeal of the Consular Agent of another Power, to whom the French agent light-heartedly communicated his views. It included the following points:—

A railway was to be constructed from Mandalay to Toungoo, on the British frontier, at the expense of the Government of the Republic and of a company which would be formed for the purpose. The capital was to be two and a half million pounds sterling. The line was to be completed in seven years and the concession was to be made out for seventy years, after which it was to be handed over to the Burmese Government. Interest was to be under



THE SUMMER HOUSE WHERE KING THIBAW SURRENDERED

the guarantee of the River Customs and the royalty on earth-oil.

The second scheme was the establishment of a Franco-Burmese Bank.

The loan was to be issued to the King of Burma at the rate of 12 per cent. a year. Other subscribers would pay 18 per cent. The Bank was to make a paper issue and to have the control of the ruby-mines and the tea monopoly. It was to be under the management of a Franco-Burmese syndicate.

The Thangyet Wundank, an official who spoke French fluently, was to carry the draft to Paris. As soon as the British Government was assured of the real existence of this scheme, Lord Lyons was instructed to ask Jules Ferry for information. Jules Ferry replied in substance that the Burmese Government wanted to throw itself into the arms of France, but that the Government of the Republic had turned a deaf ear to all its proposals. It was on this announcement, and in order to avoid further similar attempts on the part of King Thibaw, that the Viceroy made up his mind definitely to annex Upper Burma. The Bombay-Burma affair was a convenient pretext, and it was on this ground that the move was made.

But though the annexation was rapidly effected, the disarmament of the soldiery raised to defend their King and the pacification of the

country were very long drawn out, and it can hardly be said that the country was tranquillized even in 1889. Former princes, or high officials, put themselves at the head of armed bands, which disputed the ground foot by foot with the English, and for three years a merciless war of ambuscades continued to go on. In 1885 the number of troops sent to Upper Burma was fourteen thousand men. In December, 1886, it had risen to twenty-five thousand. The character of the jungle through which the troops had to force a way; the want of roads and of means of communication; the climate, most of all, which was sometimes deadly and always unfavourable and exhausting, made it necessary to have a considerable force in the field. The Burmese had a great advantage on their side in the jungle-fighting, and it was there that the British soldier suffered, but the climate claimed more men than the enemy's bullets. To reinforce the troops it was necessary to create a body of Military Police, who rendered great service. But pacification was not achieved without great efforts and the loss of many lives. The march on Mandalay was a mere military promenade, a sort of improved war manœuvres, compared with the arduous struggles that followed. It was marching day and night through dense jungle where paths had constantly to be

cut; constant skirmishes, where they were least expected; the traversing of swamps where man and beast could scarcely struggle through; or again, tramping over waterless tracts, or scaling hills which were a tangle of trees and creepers. The greater part of the country was almost entirely unknown. The guides could not be trusted. They did not dare to lead honestly, for if they were captured they were put to death, or at the very best lost their ears and noses. The least unfortunate of them found their houses burnt and their cattle carried off.

At last, after three years, in 1889, as a result of the tenacity and persistence of purpose which make the strength and glory of British policy, the country was completely pacified. The whole of Burma and the Burmese Shan States became British territory and were incorporated in the Indian Empire.

VI. In the time of Louis XIV the French had come to Burma and established factories at Syriam, near Rangoon, alongside the Portuguese, who for their part had established themselves in Burma as far back as 1540, and had played a considerable part in the affairs of the country. Even to the present day there are to be seen at old Syriam the ruins of Portuguese and French buildings, more particularly of the Roman Catholic cathedral.

CHAPTER III

THE RACES OF BURMA

I. The different races which inhabit Burma—The Burmese II. The Arakanese. III. The Talaings. IV. The life of the people: birth, marriage, death, houses, theatres and games—Family life. V. The "Kayin" or Karens VI. The Shans, or Tai. VII. The Kachins, the Chins and other races—Total of the population.

I. AT the present day, therefore, the Burmese Kingdom is a British possession, and nothing remains of the old state of affairs, except the exiled King Thibaw, who is a prisoner far from his home. Before beginning the study of Burma as it is under the British administration, it will be useful to consider the different races who, along with the Burmese, inhabit this part of the Empire of India.

There can be no doubt that the Burmese have a Tibeto-Tartar origin. If the old annals of the kingdom are to be believed, bands of immigrants, who had come down from the Himalayas and had established themselves in the country between the foot of these mountains and the Ganges, were driven out, somewhere about the

fifth century before Christ, by an Indian prince and came to settle in the valley of the Irrawaddy, where they founded the city of Tagaung, whose ruins are still to be seen on the eastern bank of the river, about fifty kilometres (thirty-one miles) north of Mandalay. These immigrants who came down from the Himalayas and were driven over to Burma would seem certainly to be the Tibetans, and as soon as they settled down they founded Burma (BA MA). The features of the present-day Burmans are very like those of the Tibetans. There are very great linguistic differences now, but, nevertheless, a considerable number of the words have retained the same sound and the same meaning as those which correspond with them in Tibetan, and the formation of sentences is the same. The Burmese as a race are quite attractive-looking. They have sturdy and well-knit figures. Their limbs are shapely, but are perhaps a little too short. Both sexes have an abundance of black hair, of which they are very proud. The men bind it up in a knot on the top of the head and cover it with a piece of silk which they call a *gaung-baung*. The women make it up into a chignon and do not cover the head, but stick a flower in their tresses. The men regularly tattoo themselves from the waist to the knees in blue-black tracery with representations of

wild animals and reptiles of all kinds and with ogres and monsters. The final result is often a tangle of figures which it is not easy to follow out. The same kind of tattooing is found among all the Lao tribes.

The Burman neither flatters nor cringes. He is usually very lively and overflowing with high spirits, full of banter and quizzicality. He is never cast down by bad luck and never overcome by abundant riches; sometimes he heaps together a fortune, but it is not a common occurrence, for he lives from day to day and takes very little care for the future. He has no idea either of discipline or of perseverance, but he is very whimsical and very independent. His character does not fit him for regular and permanent work, and he will even give up the wages which are due to him if he gets tired of his place and thinks he would like to take up something else. He goes off without giving any notice because it suits him to do so. Thus, with no inclination for work or for regular employment, with a love of nothing but dancing and play-going, and above all for Buddhist meditative languor, he is gradually being supplanted by the Indian worker, whether he is Hindu or Mussulman, and Lower Burma has become practically a colony of Madrasis and Punjabis, as far as labour is concerned.

The Races of Burma

II. Outside of Burma proper there are many other races. They were formerly distinct from and hostile to one another, but under Alaungpaya and his successors they intermingled and assimilated and became Burmese in their customs and their manners. The Arakanese who inhabit the part of the country watered by the Koladaing, which enters the sea at Akyab, the chief port on the Bay of Bengal, are the relations of the Burmese. They have developed differences from them because they are separated by a range of mountains, which, except at the extreme south end of the chain, has no passes which are easy to cross. The Arakanese who live in the northern part of their country, close to Bengal, have a distinguishing dress and even a difference in their physiognomy. It is clear that they have intermarried with the natives of India, and the Mongol type is very considerably modified. The nose is more prominent and the eyes are less tilted than those of their fellow-countrymen of the south and in Burma proper. Among some of them even the skin is darker. Nevertheless they are clearly and indisputably Burmese, though it cannot be denied that they have been greatly influenced by their neighbours on the north. Still, the Nâf River, which is the boundary line between Chittagong and Arakan, is even nowadays the dividing line which

separates the Caucasian or Indian type from the Turanian or Burman. It may be that the Northern Arakanese are rougher in their ways and more violent, proud, boastful, and vindictive. Their language differs from Burmese only in pronunciation; the words used are the same, and there is no difference in grammatical construction.

The Chaungtha, the Khami, and the Mro live in the mountains of Arakan. Some of the English officers who have had charge of these districts have ventured the opinion that these tribes, now greatly reduced in numbers, are the representatives of the race which peopled the country before the Burmese occupation. This may be so, but in any case their language and their customs are so very like those of the Burmese that it is more likely that they are offshoots from the main family—clans who have taken refuge in the mountains, where they became isolated and by slow degrees developed the differences now obvious. Mr. St. John, an officer who made a careful study of these tribes, thinks that the Chaungtha have affinities with the Talaings, who held Lower Burma and, until their conquest by Alaungpaya, had a very prosperous kingdom there.

III. It is now almost impossible to distinguish the Talaing from the Burman. According

to many British officers who have lived long among them and have studied them, they are emigrants from Dravidian India, who came to settle in Lower Burma long before the Christian era and founded there a kingdom with Pegu as their capital. Their own name for themselves is Môn, and though otherwise they are very like the Burmese, their skin is usually whiter. This, however, is a characteristic which is not peculiar to them. There are many tribes, who are not far off being savages, in the ranges of the Mèhkawng and the Salween, whose skin is nearly white. Nowadays the Talaings are mostly found in the districts of Martaban and Amherst, and extend to the Siamese frontier. They sought refuge there after the overthrow of the kingdom of Pegu by Alaungpaya in 1757-8. Even their language, which differs completely from Burmese, was proscribed; and though the English authorities cause Talaing to be taught in the schools where the children are Talaings, it may almost be said that the Môn language has all but disappeared, all the more because one never finds any one among them who is not able to speak Burmese. They may speak Talaing, but they certainly speak Burmese. Nevertheless, there are still Buddhist monasteries in Amherst where instruction is given in the Môn language and not in Burmese.

IV. In the course of time, through constant intermingling, and especially perhaps because of the identity of their religion, the Burmese and the Talaings, although they are of different origin and of different races, and although they long lived as bitter enemies, are now so completely mixed that the manners and customs of both are the same. The same state of things is found among the Arakanese, who are certainly Burmese; but since they were separated from them by the Yoma range (called Roma in Arakanese) have taken to themselves a little of the language of the Indians and Mohammedans of Chittagong. In spite of this, they have retained their Burmese customs. It may therefore confidently be said that the ways of all three peoples are the same.

When a child is born the mother is rubbed all over with turmeric, and she is kept as hot as possible with fires round about her and with hot bricks and blankets heaped upon her person. This is a custom which, in any case, is not peculiarly Burmese. It is found equally in Cochin-China and in the Lao provinces, as well as in Siam. When the seventh day has passed she has a bath and goes about her ordinary duties.

The child is named about the fifteenth day after its birth. This is made a regular religious ceremony. A monk is called in, who inscribes

on a palm-leaf the hour and the day of birth and the name which has been given to the infant. This birth certificate is called the Zadā, and is guarded with great care by the parents. It is brought into use whenever there is occasion to call in an astrologer to determine a favourable day and a favourable hour. Occasionally it happens that though the name is chosen on the fifteenth day, the Zadā is not drawn up till the child is five or six years old.

Most Oriental peoples have a habit of changing their personal names at some time or another during their life, and it is quite usual for a Burman youth, when he reaches puberty, to take a new appellation for himself. At that age, in any case, every Burman youth must spend some time in a monastery. From the age of seven or eight he has gone to the monastery to learn reading and writing, but this custom of going absolutely to live in a monastery is characteristic of all the Indo-Chinese countries which have adopted the Buddhism of the Southern Canon—the Buddhism of Ceylon. It is found no less in Burma than in Siam, Cambodia, and the Lao States. Usually the period extends to a year, but quite often it is cut down to a few months. In any case, the boys of all pious families have to wear the yellow robe for a definite period.

For girls the next most important event after the name-giving is the piercing of their ears. This takes place when they are twelve or thirteen. An astrologer calculates the lucky day and hour. The occasion is made a regular festival, and all the family friends are invited.

The rich perform the operation with two gold needles elaborately encrusted with precious stones. The poor, even the poorest, never use anything but silver needles. No other metal can be used. When the favourable minute has arrived, the professional ear-piercer, or possibly only one of the family, steps forward and rapidly passes the needles through the lobes of the ears. The girl usually struggles and cries, but the grown-up women of the family hold her fast by arms and legs, and the screams are drowned by a formidable orchestra of tomtoms and wind instruments. Every day afterwards the needles are moved backwards and forwards, and when the wound has healed up thicker and thicker needles are run through, one after the other, until the real ear-cylinders can be worn. The character of their ornamentation depends, of course, on the means of the family.

Formerly boys also had their ears pierced, but this has gone out of fashion in Burma, though it is kept up by the Shans, among whom both sexes have huge holes through their ear-lobes.



TATTOOING

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It has already been mentioned that the men are tattooed. This is usually done after the boy has left the monastery. It may be noted that this custom of tattooing is found nowhere in Indo-China except among the Burmese, the people of the Laó States, and the Tai. Neither the Tongkingese nor the Cochin-Chinese, any more than the Chinese, are tattooed. The custom is found again among the Malays, the people of Formosa, and the Japanese. Among these there are often to be seen cases where a man is tattooed from head to foot, but this never occurs in Burma or among the Tai and the Lao people. The tattooing begins from the waist above the hip-joints and goes down to the knees. In former days, however, Shan princes had some of their bodyguard tattooed all over, except on the palms of the hands and the soles of the feet, and in any case the Shans are often tattooed half-way up the chest.

Marriage is a very simple matter nowadays, and it is enough for the parents of the two parties to give their consent. The marriage follows immediately as a matter of course. This was not the way in old days, and it often happened that the young swain had to go on courting for three years before the marriage was approved. When the question was settled the members of the family came to the house of the

bridegroom's parents. When the favourable hour arrived the two young people were set side by side in front of the company. They joined hands, right palm to right palm. They ate and drank together, and then the festive proceedings began and lasted till evening. The newly married couple were then conducted to the bridal chamber, and they were showered with handfuls of rice tinted saffron-colour. This custom of throwing rice on the newly married has been adopted by the English in Burma, as I have seen on several occasions. Rice and confetti throwing, however, probably began with the Hindus, among whom it was customary for the bride and bridegroom to throw rice on one another.

Polygamy is allowed, but there are not many Burmans who have more than one wife. As far as divorce is concerned, it presents as few difficulties as it does in most of the other countries of the extreme East, and is almost without restrictions of any kind. Nevertheless, divorces are not common. The Burmese woman has very great liberty given to her, and in practice is by no means considered an inferior being. In the majority of cases she is pluckier and much harder-working than the men, and it is she who carries on all the household affairs, while the good man is asleep, or gambling, or off to see a play.

When a Burman dies his family wash him carefully from head to foot, and the body is wrapped up in white shrouds. It depends upon the custom of the family whether he is buried in a coffin, as in Europe, or burnt on a pyre, as is the way in India. As far as Buddhism is concerned, either way is proper. It is only in China that the dead are always buried and never burnt. In Japan, a country as Buddhistic as China is, there are some who bury and some who burn.

The temperament of the Burman is most conspicuous in his amusements. If he could he would spend all his time at theatrical performances, at mains of cocks or buffalo-fights, boxing-matches, or "Burmese football." The best-known of these diversions is the stage play, which is called a *pwè*.

There are two kinds of *pwè*. In one the characters are presented by real human beings, men and women. In the other they are marionettes, worked by strings. The *pwè* is carried on in the open air at the expense of some rich man, who on some domestic occasion has hired a wandering troupe, or has even brought one down from Mandalay, which has the name of producing the best players. Often very large sums are expended to get a celebrated troupe. Nobody pays for his seat on these occasions, and the whole audience is present there as the guests

of the giver of the feast. All they have to do is to bring a bamboo mat to sit on and cigars to smoke.

There is no nation on the face of the earth so crazed about the theatre as the Burmese. In Burma the entire population is as likely to be actors as spectators, and there is hardly a single Burman who, some time or other in his life, has not taken a part in a play.

Every event in life, happy or unhappy, is celebrated by a *pwè*. When the Burman is born his family give a *pwè*, when he dies they give another; when his name is chosen for him, when the little girl's ears are pierced, when her brother enters the monastery, when he comes out again, when he gets married, or when he divorces his wife—no matter what happens, there is a *pwè*. Not unseldom people in anything but easy circumstances load themselves with debt in order to give an open-air *pwè*. The stage is a very primitive one: a piece of flat ground is covered with matting and the thing is done. The orchestra—for there is always an orchestra—settles down at one side. The guests, relations, or friends of the giver take possession of the front rows, and everybody else can squat down where he likes or where he can find room. From the time darkness begins to fall young men and young women begin to stream to the appointed

place—men and women in equal numbers, the latter carrying hapless, sleeping babies astride across their hips. Their infatuation is such that nothing will keep them away.

Here is an example. I had in my employment two Burmans who suited me very well. Everything went on satisfactorily, until one day a rich neighbour gave a *pwè*. The first evening my two Burmans asked permission to go and see it. I let them go. The next night they went without telling me anything about it, no doubt because they were afraid leave might be refused. However, they came back at four in the morning, and I said nothing about it. But the third evening they again went without a word, and without doing a single stroke of work in the house, so that when dinner-time came it was all very well to call for them and search for them everywhere. There was not a soul in the house, and I had no dinner to eat. The two delinquents came back a month later. They told me quite calmly and respectfully that they had been ten solid days at the *pwè*, and we parted company on the best possible terms.

The orchestra is of much the same kind as in other parts of the East, and is made up of tomtoms, gongs, flutes, and cymbals. There are also various kinds of harps and also violins, with three, two, and sometimes a single string, like

the Chinese instrument. Burmese airs are sometimes quite tuneful, but European ears are rather apt to be tortured by them because of the undue quantity of piercing high notes. The Burmese, like most of the peoples of the Far East, like nothing so much as alto notes. All Europeans who have heard this kind of music know how trying it is to us.

Boat-races, another great Burmese amusement, are held in the seventh month, *Thadingyut*, at the time of the full moon, which corresponds to our month of October. The boats are low in the freeboard and very light. They are from thirty to forty feet long, and have a crew of sixteen to twenty. The paddlers have their hair tightly knotted on the top of their head, and wear nothing but a scanty waist-cloth. The boats are always paddled, never rowed, and they fly along to the sound of the excited shouts of the paddlers and of the enthusiastic crowd of gaily clad spectators. The boats belong to the village, or sometimes to a group of villages, who club together to get a boat and find a crew.

Boxing-matches, buffalo and cock-fights, the wickerwork-football game, kite-flying, chess, and dominoes are all common forms of amusement. There are conjurers to be found in Burma, but they are far inferior to those of India. There are also snake-charmers, who have cobras

and hamadryads with them. The hamadryad is an extremely deadly snake of the same genus as the cobra, but very considerably larger and longer. It is a question how it is that the men are never bitten, for these creatures are very dangerous. Yet the snake-charmer hunts them out, takes them up in his hands, and exhibits them forthwith, without any attempt at training. The snakes are generally kept for about a month and then set free, to be caught again later. This is done because the reptiles are very difficult to feed and look after.

It will thus be seen that the games and pastimes of Burma do not greatly differ from those of India and of Indo-China. Even the dances, called *han-pwè*, a sort of ballet, are exactly the same as in Cambodia, and more particularly in Siam, where they are called *khon*.

The Burmese, and still more the Talaings, are very superstitious, and never fail to consult an astrologer when anything important is on hand. If they are building a monastery, or a house, or are going on a journey, an astrologer is always called in to give his opinion. When the rice harvest is about to begin they make offerings to the *Nat*, or spirit of the fields.

Sorcerers and sorceresses are held in great esteem and are immediately called in in cases of sickness. The idea is that the malady comes

from some *Nat*, who has probably been treated with some want of consideration on some occasion, and his wrath has to be appeased.

When the sick man is supposed to be possessed by some evil spirit it is a veritable calamity for him, for the sorcerer will take the most desperate measures to expel the demon. He will inflict absolute agony on the victim; he beats him, puts pepper-water in his eyes and ears, and tortures him in any fashion that occurs to his mind.

Burmese doctors as a class are all more or less sorcerers and humbugs. It is true that nowadays, thanks to hospitals and medicines made available all over Burma, the people are beginning to get accustomed to be doctored in European fashion and approve of the system. Nevertheless superstition is so ingrained in them that, if they put themselves in the hands of a European doctor, they also call in one of their impostor fellow-countrymen. I have seen many cases of the kind. The medicines in use among Burmese doctors are usually various kinds of bark, leaves, flowers, seeds of plants, and roots. They use opium and hemp as sedatives. But they also use some mineral specifics. Among these are calomel, chloride of ammonia, borax, nitrate of potash, sulphur, and arsenic.

Their dress is very simple. The men wear a

cloth of cotton or silk about twenty-five feet long, which is draped round the figure. The end falls down to the feet after it has been hitched into the part fastened round the waist. It is a quite common custom when they are walking to throw the loose end of the waist-cloth over the shoulder. The pattern of these waist-cloths is often very handsome, and the colours are always very bright. The trunk is covered by a sort of jacket of white cotton. The women also wear a cloth round the waist, but it is much shorter than that of the men. They, therefore, have no loose end hanging down to the feet. The women's skirts are just wide enough to go round the waist. They are fastened usually by a half-turn just under the bust, and consequently when the ladies walk one leg and a part of the thigh are displayed. This was the old fashion, but nowadays, in the towns, modesty demands that the ends of the skirt shall be sewn together bag fashion, so that thighs are no longer as frequently seen as they were.

Above the skirt the Burmese women wear a jacket like the men, but of finer material and more decorative. Most Burmese walk barefooted. It is not often that they wear sandals.

In Burma everybody smokes, and even the children begin at a very tender age. The Burma cigar is made of tobacco-leaves, cut small and

mixed with pieces of the wood of the tobacco plant, or of one of the euphorbiaceæ (*Euphorbia speciosa*); the mixture is wrapped round with a *thanat* leaf (*Lacordia speciosa*). Melted sugar is often mixed with it. These cigars run from twelve to fifteen inches long, and their thickness is quite enough to fill the mouth of the smoker.

The Burman also chews betel, but not to the same extent as the Cambodians and the Siamese. There are quite a number of young people of both sexes who have refused to take up the habit because it spoils the teeth and makes the mouth hideous. In this sunny clime man is far from having to earn his daily bread by the sweat of his brow. The Burman has no desire to heap up wealth, and does not care to own wide lands, so that, when the rice has been sown and planted out, there is only one thing to be done, and that is, to pass the time as pleasantly as may be, smoking his cigar and chewing his betel. He goes to see his neighbour and has a gossip with him, or he squats himself down in the house of the village wood-carver who is employed on some work for the roof of the monastery. The local painter may be occupied on a frieze representing some phase in the life of the Buddha, and if so he is surrounded by a band of smokers who discuss the merits of the production.

Wandering about aimlessly in this way, visiting his friends, or sometimes going to the monastery to have some Buddhist thesis explained to him, and so benefiting his spiritual side, the Burman passes his time without trouble and without exhausting himself. His wife keeps a little shop in a corner of the house. In a village there is probably not a single house that has nothing whatever to offer to a possible purchaser. It may be dried fish, areca-nuts, betel-leaves, a dozen or so coco-nuts; or it may be things imported from Europe, such as two-penny-ha'penny knives, small mirrors, coloured glass, and such-like. But all this is a mere excuse for meeting somebody. There is a great deal more talking than selling. When a woman is in earnest about selling things she has a stall in the market and shows herself a much more capable business person than her husband would be.

The Burman has two meals in the day: breakfast at about eight o'clock in the morning, and dinner at about five in the evening. The bill of fare is practically always the same. The basis of the meal is rice boiled in water without any seasoning. It is eaten mixed up with curry. Neither forks nor spoons are used; there are not even the wooden chopsticks which the Chinese manage so cleverly. There are not

many Burmese who eat meat or fish curry, and there are none who would venture to kill a living creature for the sake of eating it: that would be against the Buddhist code. The curry, therefore, is usually a kind of vegetable soup with a terrible lot of pepper and onions in it, young bamboo shoots, garlic, wild asparagus, and a great variety of aquatic plants. The poor eat tamarind and mango leaves. Condiments such as pepper and salt and oil are always used; but the great speciality is *ngapi,* a preparation of ancient fish, which smells very strong and exceedingly unpleasant to European noses. No Burman, however, would consider a meal complete without it.

Those who are well enough off to get themselves delicacies eat a special kind of red ant called *Ka-gyin,* fried in oil, roast tortoises, iguana's eggs, dried fish, and fried ginger.

Only water is drunk, and that not until the meal is finished. The latter-day Burman, however, has developed a taste for alcohol, and often turns into some shanty where a Singapore Chinaman sells him a glass of detestable rum from Java. English beer is becoming very popular.

The houses are mostly built of wood. The flooring is about six feet above the ground on solid house posts. There is a veranda in front, and the rooms are behind this. In poor people's



Fig. 8 (Martin)

PONGYI WITH FAN TO PLACE BEFORE HIS EYES WHEN A WOMAN PASSES

To face p. 97

houses the party walls are made of bamboo mats. The rich have planks of *pyinkado* (*Xylia dolabriformis*), a very hard and durable wood. The roof is thatch; but nowadays very many houses are roofed with galvanized iron.

By way of furniture they have some bamboo mats on the plank floor, and mats also often serve for beds. For some years now chairs and tables have come into use, as well as lamps and clocks. But most often and almost universally in the country the furniture consists mostly of cooking-pots, and these of the simplest possible kind. There is a pot to cook the rice, two or three bowls, and a few cups and tumblers. They sleep on the plank floor, with pillows made of wood or hard cane.

All the holidays have a religious origin. The most notable is the end of the Lent festival, held on the full moon of October, and after it the Feast of the New Year, about the middle of April. Every pagoda has its own special festival, and the most famous are those of the Shwe Dagôn in Rangoon, the Shwe Maw-daw at Pegu, and the Shwe San-daw at Prome. These festivals are all very much alike. Great crowds gather, some people coming long distances, and the assemblage is much more like a fair than a congregation of the faithful. There are rows of market-stalls, games, *pwè* and

dancing troupes, and the time is passed, half in sheer amusement, half in religious exercises.

V. There is another race which has nothing in common either with the Burmese or the Talaings, which inhabits the hilly country to the east of Burma, as well as some of the plain districts, especially Henzada. These are the Kayin or Hk'yin, whom the English call the Karens. They are still a very distinct race from the Burmans, who conquered them in the time of Alaungpaya, and who are correspondingly detested by the Karens. For the most part they are scattered clans, isolated in the midst of the conquering race, and it is only in the ranges east of Toungoo that they are found in a natural state. It may be assumed that the Kayin or Karens formerly lived under better conditions than they do now. Their language is absolutely different from that of the Burmans and the Talaings, and has quite a copious vocabulary, which enables them to express noble thoughts and seems to indicate a people of some culture. They assert that they formerly had a written character, and it is not unlikely that they formerly had a government of their own. It is not so very long since one branch, the Kayin-ni, or Red Karens, who live in the mountains, were independent. According to their traditions they

had a very beautiful capital which the Burmese razed to the ground, and this city, they say, was in the plains, near Ava. A song, which is sung to the present day, says: "In the plain where our forefathers lie, walk with gliding steps" (that is to say, with solemn steps and slow).

No doubt the inveterate hate they have for the Burmese dates from the time of the overthrow of their capital. They have several times risen in a body to try to revenge themselves. It is, however, certain that they were not originally situated in Burma, and there is little doubt that they belong to the numerous and very scattered races which are classed together under the name of Hka, who inhabit nearly all the mountains east of Burma, the Lao country, the ranges which form the frontier between Burma and Yün-nan, and even as far as the western mountains of Ssuch'uan. The word *Hka* means "slave" in Shan, and it is hardly correct to refer to the "Hkas" as a race. The name is applied to all hill races by the Shans, irrespective of their racial connection with one another. What is certain is that there was an irruption of Hka-yin into Burma before there were any Burmese there, and that the Burmese destroyed their capital and subjugated them. At this period, about the fourth century of our era, the Burmese

were called Pyu, and the Karens down to the present day still call the Burmese Pıyā

The Karens are divided into numerous clans of which it is quite unnecessary to give a list here. There is one branch only which deserves special attention, that of the Kayin-ni or Red Karens, and to them only special attention need be drawn.

The Karen is specially notable for his dirtiness. There is none among the savage mountaineers probably who is so disagreeable in this way as the Karen. The men wear a short pair of trousers which come below the knees. They are red when they are new, but in the course of years they become a dirty black. They are held up by a red girdle. Some of them wear a kind of waistcoat of a dingy hue. Others, and it might well be said the vast majority of them, wear a motley-coloured blanket thrown over the shoulders. In the hot weather they wear nothing. The hair is knotted on the top of the head in Burmese fashion, and, as is the case with the Burmese, is covered by an exiguous turban.

The women wear a short petticoat, not going lower than the knees; it is of a sombre colour, but sometimes red. A piece of black cloth covers the bust, and their necks, waists, legs, ankles, and arms are loaded with cinctures and circlets of every kind, usually made of brass. Silver

earrings hang from the ears, which are often dragged down by the weight of them. The rings that they wear just under the knees are often so large that they cannot sit down without stretching their legs straight in front of them.

Like the Shans and Tai, like all mountaineers, like, in fact, all the more or less savage populations of the hills along the Irrawaddy, the Salween, and the Mèhkawng, the Red Karens carry spears and swords, and formerly never went abroad unarmed, though now under British protection they have almost entirely given up the practice. They are almost without exception spirit-worshippers. Even those who have become Buddhists, through mixing with the Burmese, keep up their old belief in the *nats*, and they go on making propitiatory sacrifices to them to gain their goodwill, in spite of their conversion. It is true that as long as their health remains good they do not trouble the spirits very much, but whenever there is sickness in the family chickens are killed, and pigs, dogs, cattle, and even buffaloes are sacrificed to appease the anger of the *nat*.

Chicken-bones are precious talismans. The Red Karen consults them to find out where he is to build his village or his house. He consults them before he goes on a journey, to ascertain the day and hour when he should start. He

consults them as to the girl he ought to marry. He consults them as to the exact spot where he should set fire to the brushwood to prepare his hill cultivation, and again as to when he should sow the field. He will do nothing at all, in fact, before he has consulted his chicken-bones.

Nothing particular happens in the way of ceremonial when a child is born, beyond the fact that relations and friends hold high revelry and drink a prodigious lot of rice-spirit. As soon as the mother is able to get up she goes out of the house, which, like those of the Burmans and Shans, stands on piles, takes a mattock, and hoes together a little mound of earth. It does not matter whether the child is a boy or a girl, and the meaning of the performance is to teach the infant that it is born to work for its living. If this ceremony were omitted the child would be certain to grow up a wastrel.

The Karens, like the Chinese, affiance their children very early, but they have this advantage over the Celestials, that when the engaged persons have reached marriageable age, they can choose another partner, on condition that they pay a certain sum to compensate the person chosen for them by their parents. Divorce is no more difficult with them than it is with their neighbours. It is easy enough, but it is not practised as much as it is in France, still less

as in the United States of America. Adultery is not at all common. The outraged husband has the right to cut off the ears of the woman caught in the act. Unmarried girls, on the other hand, have the utmost liberty allowed to them, which is a sort of compensation.

When any one in a Karen village is near death's door, the people in the house fire off guns to drive away the spirits. If, nevertheless, the person dies, they fire a volley over the coffin at the time of interment. The object is to prevent the spirit of the deceased from coming back among the household. Karen coffins are of exactly the same model as those of the Chinese, and, like the Chinese, well-to-do Karens provide themselves with coffins long before the time when they might be considered necessary.

They have two great annual festivals, one about April and the other in August, the times of the sowing and the reaping. There are other general holidays, and the feature of them all is the same. They eat and drink to the limit of capacity.

There are no religious buildings, except small image-temples, or sanctuaries rather, which are set up under some big tree in the centre of the village. These are placed under the care of one of the village patriarchs, usually the one who has most skill in reading chicken-bones.

The different tribes and sub-tribes of the Karens have been studied by British officers in some detail. All the customs of these partially savage clans are sufficiently alike to be considered the same, although among some of them polygamy and divorce are not allowed, which is singular enough among peoples of this scale of humanity to be worth noting.

Nevertheless, the Red Karens are to some extent civilized and reclaimed from barbarism. The working of the teak forests in their States has brought them into communication with the outside world, which up till then they had known nothing about. In addition to this, the opening of tin-mines has given them work and added to their resources; and finally, since the teak trade has declined they have taken to cultivating the soil, with results, in 1911, which may be called satisfactory, if they are not excellent. It is clear that the harvest might have been better than it actually was if the rains had been heavier, but at any rate it was enough for local needs, and the Karens, who had to borrow money in order to start the cultivation, were able to repay the advances made to them. Consequently, their country, which had been looked upon by Government as incapable of producing anything, is in process of amendment, and the prospects are all the better because other mines than those actually

being worked will be discovered. The younger generation of Karens have a perspective of prosperity before them which must gradually raise their moral level and their material well-being.

VI. Lower Burma, and the plains of Upper Burma as far as Mandalay and Katha, are, we have seen, inhabited by the Burmese, mixed up in Pegu, Maulmein, and Martaban with the conquered Talaings, and in Henzada and the hilly country to the east with the Karens, also a conquered race. But this does not cover all the races of the country. The frontier territory of Upper Burma, the administrative districts which march with China, Tibet, and Assam, are inhabited by divers races very distinct from the Burmese. The first and the most important are the Shans, or Tai, who occupy all the Salween heights and the hill country up to Bhamo. The basin of the Salween would be the broad description of the Shan country, and the Shans are no longer predominant in the Bhamo district. These Tai are of exactly the same race as the Chinese Tai of Chieng Hung and elsewhere to the north, and as the French Tai of the Upper Lao country and of Möng Hsing, of whom an account is to be found in my book *La Grande Artère de la Chine, le Yangtseu*, and also in Captain de Reinach's book *Le Laos*. Those who concern us here, the Shans who have been long under Burmese

rule, have nevertheless preserved their customs and their language. They have clung to their hills, and have not intermarried to any great extent with the Burmese. They have nevertheless adopted the Burmese alphabet, with some slight modifications, as their written character. These Tai or Shans formed, in the time of the Burmese kings, a sort of colony. Representatives of the central power were sent to ensure the authority of the King, but the people were governed by their own laws and retained their own customs, and they had their own chiefs, who were called Sawbwas. This system has been retained, and the British confine their authority over the Shan States to the dispatch of Residents, with power to guide and control the native chiefs. Burma proper is a regularly administered province, but the Shan States are referred to as "the Protectorate of the Shan States," and they are officially designated Tributary States.

The Shans were not always subject to the Burmese, and in the first century of the Christian era, about the year 80, this was so far from being the case that they had extended their territories to the banks of the Irrawaddy. This Shan domination lasted for several centuries in the north, and was not broken till the time of King Anawrat'a in 1052. In spite of this, as a result of the constant wars between the Burmese, the

Shans, the Chinese, and the Peguans, the Shans still retained power in Upper Burma and on the banks of the Irrawaddy for many long years. While there was a Burmese king at Pegu, there was a Shan king at Ava, and it was not till 1551 that the Shan country was occupied by King Buyin Naung, who reigned for thirty years (1551-81), and after endless wars, not merely with the Shans, but with Siam, Arakan, and Pegu, ended by unifying Burma. Except for a rising of the Shans of Mo-hnyin and Mogaung in 1576, the Tai were finally made subject to the crown of Burma, but none the less they had a sort of semi-independence and were allowed to carry on their own administration. The Tai or Shans are markedly a different people from the Burmese, and their connection with the Chinese is no less apparent from their physical appearance than from their speech. They had long struggles with the Chinese, in which they filled the place sometimes of rivals and sometimes of subjects. The study of their history has only just begun, and, so far as it has gone, goes to show that the Chinese and the Tai belong to the same family, and that the Chinaman is, so to say, the elder brother.

The Shans are whiter than the Burmese, especially the women. Apart from the whiteness of their skin, however, the women are not so

pretty as their Mandalay sisters. The men's dress consists of baggy trousers and an exiguous coat, often of very ornate design. There are many of them, however, who wear Chinese dress pure and simple, though only on the extreme border of the British Shan States. The women wear a skirt of the sack-without-a-bottom pattern, of motley colours, and a small jacket. The men wear wide hats of straw, or bamboo spathes, and the women wind a turban round their tresses.

When a child is born there is no ceremony of any kind, and the mother is not roasted with a fire as the Burmese woman is, but she is forbidden to eat certain things for a month after confinement. She is looked upon as unclean for seven days, and before she can take up her domestic duties again she has to take a bath and put on new clothes.

The marriage customs have nothing very distinguishing about them. All the two young people have to do is to arrange the matter themselves and let their parents know. They agree, and then on the day arranged for the purpose the whole family meet together in the bride's house. The bridegroom brings packets of pickled tea and salt, as well as the amount of money to be paid to the family of his future wife as compensation for her loss. He lays down all of them

before the girl's father and mother and makes a formal demand for her hand. The parents take the money, and one of the elders of the village carries the tea and salt out into the street. There he holds them on his head and calls aloud to the earth, the sky, and the sun to bear witness to the marriage of the young people. He then goes into the house again and ties a string of seven strands to the right wrist of the bridegroom and to the left wrist of the bride, and the marriage service is over. The bridegroom then distributes some money among those present, and the whole party sit down to eat together.

Divorce and polygamy are permissible, but are not common.

Shans eat everything—meat, fish, fowl, reptile. The Shans living east of the Mèhkawng are particularly partial to snakes. They season their food with all manner of herbs, like the Burmese.

Among them the stealing of cattle is considered the most serious of all crimes, and in former times was punished with death. The murder of a human being could always be compounded for by payment of Rs. 300.

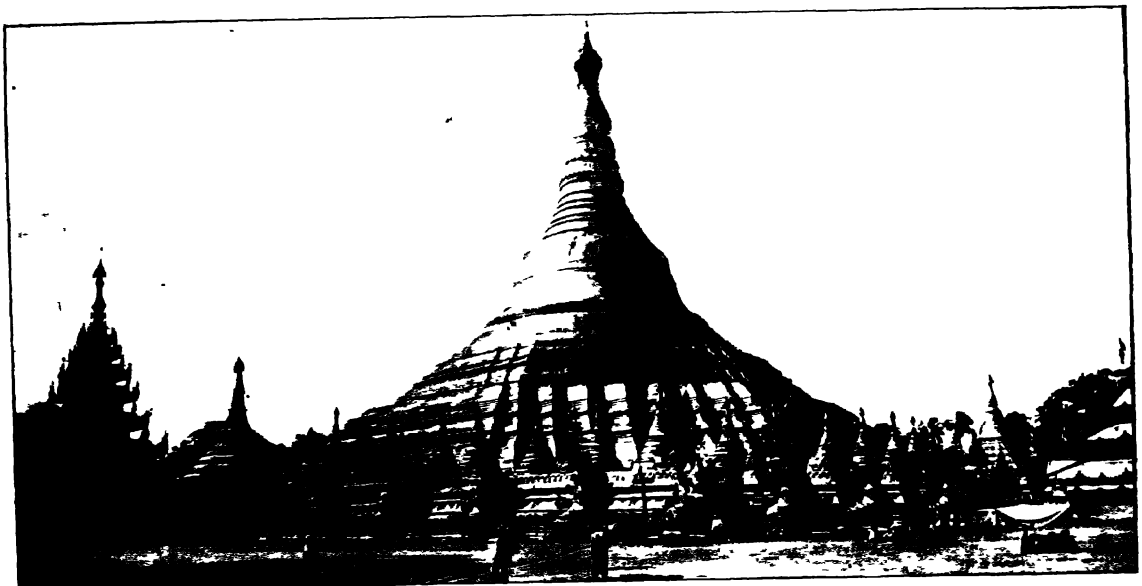
Shan houses are like those of the Siamese and the Lao people. They stand on piles high above the ground, and one climbs a ladder to get into them. In this way the human beings live above,

and below them are their domestic animals—buffaloes and bullocks, goats and pigs.

Their chief crop is rice, but they also grow sweet potatoes and yams, beans, artichokes, and egg-plants. Those who live near settlements of Europeans have begun the cultivation of European vegetables, which grow very well in the hills.

VII. Among the races which inhabit Burma there must be enumerated also the Kachin and Chin hillmen, who live to the north of Mandalay beyond Bhamo and west of Pakôkku. So far they are very partially civilized, but they have learnt some moderation from contact with their neighbours, more particularly owing to the good administration which has been introduced among them since the British occupation.

If all the races are taken together, the population may be taken to be ten millions, of whom eight millions are Burmese or tribes cognate to the Burmese.



Photo] *Franc's — Co., Mandalay*

A PAGODA.

CHAPTER IV

PHYSICAL GEOGRAPHY

I. Lower and Upper Burma—Physical geography of Lower Burma. II. Topography. III. Valleys. IV. Mountains. V. Rivers and streams. VI. Lakes. VII. Topography and orography of Upper Burma. VIII. The Shan Plateau. IX. Physical divisions. X. The common maladies of the country.

I. BURMA, since 1885, when it became as a whole a British possession annexed to the Indian Empire, may, from the point of view of physical geography, be divided into two parts, first as it is so divided from the political point of view. These two parts are: Lower Burma, with Rangoon as the capital, and Upper Burma, with Mandalay. I will therefore describe the two parts separately, and will first take their physical geography.

Lower Burma extends from the mouth of the Nâf River, in twenty degrees north latitude, to the mouth of the Pak-chan, in the Malay Peninsula, in the tenth degree of north latitude. To the north lies the Chittagong district, which

forms a part of the Province of Bengal. The Nâf River is only the boundary-line near the sea. In the interior the frontier is formed by the Yoma range, which the Arakanese call Roma. In about the latitude of the town of Prome the frontier bends to the east, and after an elbow to the north towards Minbin, passes through Gyobin to the north of Toungoo and ascends the Karen hills. It follows the crest of these hills, descends to the Salween, and then takes the line of the Thoungyin River as far as Myawaddy. From this point down to the estuary of the Pakchan a high range of mountains, which separates the Gulf of Siam from the Gulf of Martaban and cuts the Malay Peninsula into two long strips, forms the boundary between Lower Burma and Siamese territory. Everywhere to the west and the south the waves of the Bay of Bengal form the boundary. The coastline near the Sandoway River is cut up into numerous low islands, which make up a sort of network of estuaries and creeks communicating with each other and with the sea.

From the mouth of the Sandoway River as far as Cape Negrais the character of the coastline changes. It takes the form of a rocky barrier, standing firm against the waves of the sea and affording no safe place of retreat for vessels in distress. From there on along the south the

coast is a mere succession of rocks and sand-banks, the last extremity of the Yoma range which is not far off. It is a very inhospitable coast, but none the less here and there are to be found fine valleys, which present a very agreeable contrast with the abrupt cliffs which are found on either side of them. Down the middle of these valleys run little mountain streams, cutting their way to the sea through banks covered with luxuriant vegetation.

From Pagoda Point onwards the coast turns almost due east, and eastwards of Purian Rock, which is at the end of the island lying at the mouth of the Bassein River, the appearance and character change absolutely. The rocks and cliffs disappear, and in their place is seen a huge expanse of sand and flat lands, covered with grass, mud, and marshes, which extend from eight to ten miles into the sea, covered or exposed according to the tide. These make the shore impossible of approach, except by the channel left open by the scour of the rivers. The coastline then rises slightly as far as the mouth of the Sittang River. From Martaban and Maulmein it turns due south, and all the way to Pakchan is bordered by a fringe of mangrove swamps, which prevent any encroachment by the sea. Here and there are small fertile plains and hillocks of no great altitude. The

mangrove swamps are a mass of soft, fetid mud, and they are cut through by a multitude of creeks, sometimes brimming over with water, sometimes empty, according as it is high or low tide. During neap tides the whole land is flooded.

South of the estuary of the Tavoy River the whole coastline is covered by almost numberless islands, which make up the Mergui Archipelago. The coastline itself barely rises above mean sea-level, and in addition to this is cut up by many hill streams, which connect with one another and make it into a succession of flat islands.

II. Four well-marked divisions may be noted in Lower Burma.

In the west there is a triangle with its apex to the south. The northern part, or base of the triangle, is covered by the mass of spurs from the Yoma range, and is watered by many torrents, which unite and enter the sea in the form of one or two great rivers. To the west and the south there are rich alluvial plains cut up by many channels. They are shut in on the east by the Arakan mountain range, which enters the sea at Pagoda Point and covers both land and sea with cliffs and rocks and makes this coast extremely dangerous for ships. The greatest length of this division is about five hundred miles and its greatest width, on the

north, is about a hundred miles. The lower levels are considered to be among the most fertile in the province, and it is from them that is brought the rice which so many ships come to Akyab to load their holds with.

East of the Yoma are found the Valleys of the Irrawaddy and the Sittang, both of them narrow and hilly to the north. They widen out gradually, and a little north of Rangoon, at the end of the Pegu range, which separates them, they unite and form one huge plain of alluvial soil, which extends southwards to the sea and has for its boundary on the west the Arakan range and on the east the Martaban hills.

To the north of the plain of Kyaikto the east-central portion of this division is in many respects very like that of the northern part of the Arakan division. It is made up of the Paunglaung range and of other ridges parallel to it, along with their spurs, amongst which the depressions are ravines rather than valleys, watered by hill torrents, which make their way to the sea by joining the Bilin and Yonzaleen Rivers. All this part of the country is covered by dense forests, and is inhabited by only a few Karens, who cultivate only to a very small extent.

To the extreme east there is a ribbon of territory, bordered by the Salween and the Dawna Mountains. It is mostly flat land to the north,

but the southern half is covered with dense forests. In the latitude of Maulmein its width is about fifty-four miles. To this may be added the Mĕrgui Archipelago, a multitude of islands, extending from the mouth of the Tavoy River to the southernmost part of the province. These islands are almost all hilly and are covered from top to bottom with evergreen trees. The scenery is at once charming and magnificent.

III. The part of the Irrawaddy Valley in Lower Burma extends from Prome down to the sea. In the north and for a distance of something like 130 miles to the southward spurs from the Arakan Yomas run down to the banks of the Irrawaddy. Away from the stream they are usually steep, but on the Irrawaddy they often look mere hillocks, from three to six hundred feet high, as, for example, at Gyobintaung and Tun-gyi-taung. As a consequence of this there is very little cultivated land. East of the Irrawaddy the country is mountainous and covered with jungle. But sixty miles or so to the south the hills draw back from the river, and below Prome there is a magnificent wide cultivated plain running southwards between the Pegu hills on the east and another range of low hills parallel to the Irrawaddy, inside which there is also a cultivable plain.

Below Akauktaung begins the Delta, which

is a vast extent of alluvial plainland stretching away to the horizon. There are no hills; there is nothing but the ricefields, extending for hundreds of kilometres down to Rangoon. The countless branches of the Irrawaddy cut up this wide, fertile plain in every sense of the word. The waters of the different rivers—the Irrawaddy, the Pegu River, the Sittang—mingle with one another in one huge delta. In the basin of the Sittang the country to the west of the river is of the same character as the north-east portion of the valley of the Irrawaddy. A few miles to the south of Gyobin the hills draw back, and make room along the line of the river for plains which gradually widen down to Toungoo. South of Toungoo the plains extend unbroken to the west, but on the extreme verge they are broken by a stretch of low wooded hills, covered with an almost impenetrable jungle of forest growth. On the eastern side of the Sittang there extends a wide cultivated plain, which reaches to the hills of Bilin and Martaban.

The Salween Valley, on the east, consists of a flat country, bordered on the east by the Dawna mountains and watered by the Hlaingbwè, the Haungtaran, and Attaran Rivers. The plain gradually shades into rolling country and rises to form the mountains which form the boundary of the Amherst District. Westwards, towards

the Bay of Bengal, there is a spacious plain called the Ye Valley.

In the Tavoy District the alluvial plain surrounds Tavoy town itself, and extends southward to the parallel of Cape Tavoy or Tavoy Point.

IV. There are four main chains of mountains in Lower Burma, of which the chief is the Arakan Yoma-taung. The chief heights in this range reach an altitude of over 3,000 feet, and are mostly found on the north on the Manipur border. Southwards the height decreases, but when the range enters Arakan it rises again, and the blue peaks which are found along the ninety-third parallel in the twenty-first degree of north latitude rise to over 8,000 feet above mean sea-level. From here they send out spurs in all directions, are heavily wooded, and cover the whole country. They are all but inaccessible, and are frequented only by the natives of the country, who alone know the few paths that lead to them. The farther south the range goes the more it loses height, and finally ends in picturesque, low hills, covered with mango and wood-oil-trees, hard by the Bay of Bengal.

East of the Irrawaddy is found the Pegu range of Yoma, which forms the water parting between this river and the Sittang. They rise gradually from the Yamèthin plain and trend to

the south, throwing out a few spurs westward as far as the Irrawaddy. Here they have a height of between one and two thousand feet, but still farther south they exceed three thousand, and their various spurs shut in the valleys of the Pegu River, the Pazundaung River, and others of minor importance. They run on in the shape of mere rolling ground and rise slightly at Rangoon, where the summit of a little hill has been levelled for the site of the famous Shwe Dagôn Pagoda. Beyond this, on the farther side of the Pegu River, the Pegu Hills reappear in the shape of low wooded hills, on which stands the noteworthy Kyaik-kauk, or Syriam pagoda, and finally they vanish in the rocky reefs below Kyauktan, which make the navigation of the Hmaw-wun dangerous for reckless boatmen. These hills are not easily got at, and especially in the central parts they are covered with savage jungle, all but impenetrable, where the tiger and the elephant roam at large. They have much valuable timber—teak, cutch (*Acacia catechu*), and iron-wood. There are several passes, which offer a way across these hills from the Irrawaddy to the Sittang Valleys.

Fifty miles east of the Sittang the mountains rise abruptly in steep slopes, clad with pines, to a height of 3,000 metres, and even in the Kaung neighbourhood as high as six or seven

thousand feet. Farther south they fall away and throw out spurs, which in some places to the west, as, for example, at Kaywè, reach the Sittang, and end between this river and the Bilin in a range of hills, which have a general line from east to west, from Kyaiktiyo, above the town of Sittang, by way of the peak of Kelata to the hills behind the town of Bilin. Farther to the east this chain is continued by the hills of Shwe Nyaungbin, which end at the creek of Kyun-yôk, only to reappear to the south in the Martaban Hills. Still farther east they end in a long spur, which stretches between the Pinlaing and the Salween and ends in rolling ground at the junction of the two rivers. The chief peak in this chain, not far from Toungoo, is the Nat-taung, which has a height of about 7,000 feet.

The Martaban Hills, or, as they are sometimes called, the Zin-gyaik Hills, after the name of their chief feature, are covered with forest and other jungle. They extend southwards from Kamataing to Zin-gyaik, some eighteen miles south of Ta-tun, whose pagoda-crowned summit reaches 4,000 feet above mean sea-level. A little farther south is the Kulamataung peak, of about the same altitude. Beyond this the height falls away and ends at Martaban in the slopes over the Salween. From Zin-gyaik a spur runs

north-west and ends at Kantan, and forms with the main range the limits of the Debayin Valley.

East of the Salween a high range extends southwards, and in a way outlines British territory from the gorge through which the Thaungyin River passes to the source of the Pakchan and marks the boundary with Siam. South of the gorge rises Monlayit, a huge granite mass in the shape of a truncated cone to a height of over 6,000 feet, and can only be scaled from the north. The eastern and western faces are sheer precipices. The country at the foot of the cone widens out and is covered with short grass and clumps of rhododendrons, with scattered blocks of granite. A confused mass of spurs starts from this peak in all directions, forming a number of small valleys. The chief of these is the Dawna Valley, which runs north-north-west almost as far as the Salween and forms the watershed of the Chaungyin. Farther south the high tableland, with rolling hills, changes into absolutely bare, chalky cliffs.

Above Ye, in the Amherst District, almost the whole surface of the country is covered with a mass of forests growing on the hills which stretch south to join Tavoy, Mergui, and Tenasserim. South of the last place a range of less elevation forms the watershed of the Le-nya and the Pakchan. These ridges send out all manner

of spurs, running parallel to the sea, from Maulmein southwards, and the Taung-nyo ridge in particular forms the Attaran watershed.

The most celebrated hills are those of Tenasserim, charming to look at, covered with verdure, and pierced by natural caves, which have been converted into chapels to the Buddha and adorned with his images. Igneous rocks, covered with luxuriant vegetation and stretching far, all in one direction, one after the other, rise up, some of them below the others in uninterrupted lines, so that the traveller who stands on the summit of one of the higher of them has an unbroken view of over sixty miles, with, in the extreme distance, a seven thousand feet range as a background.

V. The Nâf, in the extreme north, is more an estuary than a river. The mouth is three miles wide and it has a course of a little over thirty miles. About thirty-seven miles to the south, and separated from it by the Mayu Hills, is the Mayu River, another arm of the sea, very wide, very rocky, quite shallow, and very difficult to cross.

The Kuladan is separated from the Mayu by the island of Akyab, but it is connected with it by channels which are always navigable at high tide. The Kuladan rises in the hills to the north, and runs with a general southerly direction as



Photo] [*Frith*

AN IRRAWADDY RIVER VILLAGE

far as the town of Akyab, where it enters the Gulf of Bengal, and is known to Europeans as the Akyab River, while the natives of the country call it the Gat-chaba. The mouth of the river is sheltered by the Borongo and Savage Islands, and forms a fine wide harbour. A sand-bank, however, makes entry into it rather a difficult matter. This is, however, a drawback characteristic of all rivers in Farther India. It can be navigated for about a hundred and twenty-four miles above Akyab. Beyond that, however, it becomes a mere succession of rapids.

Besides these there are small rivers such as the Mro, which enters the sea at Hunter's Bay, the Dalet, and the An, which have their discharging point in the same bay. The Sandoway River cannot be navigated beyond that town; and the Ka is not deep enough to be navigable at all.

East of the Arakan range the chief rivers are the Irrawaddy, with its different arms, more particularly that at Bassein, the Sittang, the Bilin, and the Salween.

The Irrawaddy, of all the streams in Burma, is far and away the most important. It is made up of two rivers named by the Kachins, from whose country it comes, the Mali and the N'mai. These two rivers have their junction at a point about a hundred and fifty English miles above Bhamo, in 25° north latitude. The river can

be navigated up to the confluence only at the time when the water is high, in the rainy season, and steam-launches go up there from Bhamo, though they often have difficulties owing to the Mansi and Tangpè rapids, and also on account of the narrowness of the defile which has to be passed above Bhamo. Steam-launches can ascend to Myit Kyina only during the cold and hot weather. During the rains the rush of water through the Third Defile is so great that vessels cannot force their way through. There is no regular service to the confluence from Myit Kyina, but light-draught steamers can go there except at the time of lowest water. From Rangoon to Bhamo steamers carry on a regular service all the year round, in two stages—from Rangoon to Mandalay, and from Mandalay to Bhamo.

The Kachins call the Mali the Mali-kha (*kha* being the Kachin word for river) and the meaning of this is the "Great River," which is represented by the Burmese name *Myit gyi*. The eastern branch, the N'mai-kha, means in Kachin the "Bad River," while the Burmese call it the *Myit ngè*, or "Little River."

In spite of this there are those who think that the N'mai is the real main stream, but according to native opinion a great river is one which is navigable all the year through, and this the

N'mai is not, on account of its numerous rapids. The Mali River, on the other hand, is always navigable, and is completely known throughout its course, as are also its affluents and the villages along its banks, and it is on this ground that it is usually considered to be the chief branch of the Irrawaddy.

South of the confluence of these two rivers, the Irrawaddy receives the Nam Kawng or Mogaung River, the Mole, and the Taping. The first of these, on the right bank, is navigable for small vessels during the rainy season. The two others, the first on the right and the second on the left, are not navigable at any time of the year. The Taping is, however, navigable for some dozen miles of its length for native boats. Farther to the south the Shweli, or Nam Mao, comes from the Shan States and China, as does the Mèza, both on the left bank. At Amarapura, the Myit Ngè, or Nam Tu, enters the Irrawaddy, coming down from the Shan States, but it is not navigable for any great distance. At Myin-man the Man river is a right-bank affluent. North of Pakôkku comes in the Chindwin, with its three affluents, the Uyu, the Yu, and the Myittha. It is navigated by river steamers as far as Homalin, near the mouth of the Uyu, all the year through. The Môn enters the Irrawaddy twelve miles north of Minbu. The

Upper Irrawaddy from Mandalay to Bhamo is not very wide, and therefore its banks are very varied in their attractions. Virgin forests alternate with cultivated fields. There are small Burmese villages hidden away among mangoes and banana-groves. Sometimes the scenery is wild and striking; sometimes it suggests the softness of a Japanese landscape. Two defiles are passed before Bhamo is reached. In one of these the waters, pent in between perpendicular cliffs, rush down with the noise of a torrent. At Bhamo itself the surface of the river widens out so that it looks like a great lake. In the winter season this journey from Mandalay to Bhamo has become a favourite with tourists. At this time of the year the climate of Upper Burma is at its pleasantest, when the nights and mornings are cool and fresh, and the north-east monsoon tempers the sun in the middle of the day.

South of Mandalay, on its way to Rangoon, the river widens out after passing Sagaing, which faces the ancient city of Ava, of which nothing now remains but some monasteries and a few ruined walls. It is here, close by the old Ava city wall, that the Myit Ngè joins the Irrawaddy. The river narrows just below this in front of Sagaing. Opposite the town, on the other bank, there rises a solitary height crowned by a pagoda,

and the general effect is very fine. After Sagaing and Ava and the mouth of the Chindwin have been passed, the Irrawaddy widens very considerably, and there are extensive sandbanks. Lower down, where the hill spurs from the Arakan and Pegu hills come in, the channel narrows again, and navigation is more difficult because of the irregularity of the current bed and the presence of rocks. After the defile below Prome the stream spreads out in the plain, and the delta begins a little south of Myan-aung. Before Henzada is reached one arm turns west, and under the name of the Bassein River enters the sea to the east of Mangdin by two mouths, between which lies an island, intersected by many creeks and ending in a point stretching some distance seaward, called Poyôn or Puyôn.

After passing Henzada and Danubyu, the Irrawaddy sends off an arm to the east at Panlang. This joins the Hlaing River a little north of Rangoon, and with it forms what is called the Rangoon River. Other branches, too numerous to mention, divide the delta between them on their way to the sea. But of all of them the most notable is that known as the Bassein River, the most westerly of all, and it is notable specially for this, that sea-going vessels can sail up to Bassein itself to load and unload.

The Hlaing rises in the marsh-lands east of

Prome, and runs south, separated from the Irrawaddy by slight rising ground. Then, as is noted above, it unites with the Panlang creek a little above Rangoon, and at that town itself receives the joint waters of the Pegu and Pazundaung Rivers, and enters the sea under the name of the Rangoon River. It is navigable all the year round for vessels of the deepest draught as far as some miles north of Rangoon, and during spring tides they can go thirty miles beyond, but owing to the bar, known as the Hastings shoal, formed at the junction of the Rangoon, Pegu, and Pazundaung Rivers, they cannot pass at low tide.

Along with these three, the Irrawaddy, the Pegu, and the Pazundaung Rivers, there are many more or less important streams which flow into the Gulf of Martaban. Two of these are worthy of special mention: the Sittang and the Salween. The Sittang, which the Burmese call Sittaung, rises in the latitude of Yamèthin in the Karen Hills, passes by Shwemyo, Pyinmana, Toungoo, and Shwegyin, and then a little after passing the town of Sittang, enters the gulf in a very wide estuary. At the time of the highest water, during the rainy season, this estuary, like that of the Rangoon River, forms a wide expanse of water. The Salween is believed to take its rise in the mountains of Tibet. This river is

remarkable for its magnificent and wild defiles, which make it unnavigable on account of the multitude of cliffs along its banks and of the rocks in mid-stream. So far it is only navigated by a few steam-launches on its lowermost reaches. The bed is very narrow, shut in by banks which often rise to a height of three to four thousand feet and give the river the appearance of a mighty torrent, notwithstanding that it varies from one to three hundred yards wide. It is much longer than the Irrawaddy, but cannot be compared with it from the point of view of utility. The Salween is a picturesque river, and one eminently fitted for artists. It is striking and attractive, but the Irrawaddy is a real trade waterway. It enters the sea between Martaban and Maulmein, and it is divided at its mouth by the island of Bilugyun.

Besides these there may be mentioned the Attaran, the Tavoy, and Tenasserim Rivers, and finally the Pakchan, all of them entering the Gulf of Martaban south of Maulmein.

VI. There are several lakes. The largest in Upper Burma is the Indaw-gyi Lake, in Myit Kyina district. It measures nineteen miles by six, and is bounded to the south-east and west by two ranges of low hills. To the north-east it breaks a passage for itself and lets out the Indaw River, which enters the Nam Kawng, the

Mogaung River. The Indaw Lake in the Katha district has an area of about sixty square miles.

The Meiktila and Aungpinle Lakes, the latter near Mandalay, are artificial reservoirs. The Indein Lake, near Yawnghwe, in the Southern Shan States, is nearly as large as the Indawgyi. The Nawnghkeo Lake, on the top of a range north of Möng Ka, is celebrated for the mystery which surrounds it. It is in the heart of the Wa country, surrounded by dense forests, which make it almost unapproachable. It is said to be very deep, and no fish, they say, live in it. There are many legends about it, among both Shans and Wa, who never speak about it without awe.

The Inma Lake is in the Prome district, the Du and the Duya in that of Henzada, and in Bassein there are the Shahkègyi and the Inyègyi. The Shahkègyi is a fine sheet of water about three and a half miles long and one and a quarter wide. The Inyègyi was formerly, probably a part of the Daga River, and is still connected with it by a small channel which has a wooded island in the middle of it.

The Rangoon Lakes, which are known as the Victoria Lakes, are the place of assembly for society at sunset-time. They are surrounded by large and well-laid out gardens, and they form one of the pleasantest places in Rangoon.

VII. The outskirts of Upper Burma, the Chin

country, the Kachin Hills, and the Shan States, are very hilly, and very different in character from Lower Burma. Upper Burma is surrounded on three sides by a wall of mountain ranges. The Shan and Karen hills, which lie in successive ranges running north and south, form the eastern boundary. In the Mandalay District, the Shan Hills, which are far more extensive than the Karen, come close down to the Irrawaddy. They may be divided into two zones, the north and the east. The northern zone consists of two parallel lines running down from the Ruby Mines District, with an average altitude of four to five thousand feet. The eastern zone includes the Pyin-u-lwin subdivision and forms a tableland of about four thousand feet altitude. These two zones, from the point of view of physical geography, are really part of the high lands known as the great Shan tableland, just as the Ruby Mines District itself is. This district, except for the part down by the river, is seamed by high ranges of hills ranging from six to seven thousand feet in altitude.

In the west of this district the ranges run north and south, but farther in they have an east-west direction. In the Myit Kyina and Bhamo districts there are four main ranges of hills. The eastern Kachin Hills spread out south of the Möng Mit State to form the

plateau which separates the basins of the Irrawaddy and the Salween. The Kumon range extends from the State of Hkamti-Lông (east of Assam) to a point a little to the north of Mogaung. The Kauk-Kwè Hills start from Mogaung and run southwards to the plains on the western side of the Irrawaddy. The Jade Mines range, west of the Upper Mogaung River, extends beyond the drainage of the Uyu River as far as the Hukawng Valley.

The Chin Hills form the western boundary of Upper Burma, just as the Kachin, Shan, and Karen Hills from the eastern. The Chin Hills are a continuation of the Naga Hills, which form the eastern boundary of Assam. Farther south they take to themselves the name of the Arakan Yoma. The Pegu Hills take their rise in the Kyauksè and Meiktila Districts, and running parallel to the Shan Hills, separate the Irrawaddy and Sittang basins. The Paunglaung Hills rise from the level of the Shan plateau which separates the Sittang from the Salween and rise in very high peaks, one of which exceeds eight thousand feet. The most easterly range is that which separates the Salween from the Mèhkawng drainage, and to the south divides British territory from that of Siam. Still farther south it runs on in the backbone ridge of the Malay peninsula.

In the extreme north of Burma all these chains take their rise or lose themselves in the plateau of Tibet.

The Chin Hills form a parallelogram about two hundred and fifty miles long by from one hundred to a hundred and fifty miles broad. Here there are no plains, no tableland, nothing but a series of abrupt ridges, separated by deep valleys. On the Myittha Valley side there rise up steep slopes covered with dense forest and seamed with deep ravines. These hillsides are very thinly inhabited, and this remains the same until the crest is reached which runs parallel to the Myittha River and perhaps sixty miles distant from it. Beyond one sees a series of bare ridges, with here and there villages and cultivated fields. The main ranges run north and south, and their height ranges from four or five thousand to nine thousand feet. The most important are the Letha or Tang range, which forms the water-parting between the drainage of the Chindwin and the Manipur Rivers; the Imbuklang, which is the watershed between Upper Burma and Arakan; and the Rong Klang, which separates the basin of the Myittha from that of the Boinu. The highest peak seems to be that of Liklang, about sixty miles south of Hakka. It has a height of nearly three thousand five hundred mètres, just under ten

thousand feet. Others are Lunglen, on the Manipur frontier, 7,600 feet; Katong, on the same frontier, 8,200 feet; Nwakum, 8,900 feet, and Kul about the same. The last is known by the name of Kennedy Peak. There are other peaks, such as Rum Klao and Boipa, which are close on nine thousand feet.

The Kachin Hills lie between the twenty-third and twenty-sixth degrees of north latitude and the eighty-sixth and ninetieth degrees of east longitude. They consist of a series of mountain chains running steadily from north to south, cut through here and there by valleys leading down to the Irrawaddy. They are forest-clad and rise up sheer like the fingers of an open hand. They are covered with eternal snow, and the peaks rise to between eleven and twelve thousand feet.

The country north and north-east of Bhamo—that is, between the N'Mai on the north and the Taping on the south—is a simple mass of hills, except for a flat stretch along the banks of the Irrawaddy. There are peaks here that rise to twelve thousand feet or more. Most of these are north or north-east of Sadôn. The chief ranges have a north-south direction, and except for a few clearings for hill cultivation, they are covered with dense forest. They are very steep and the soil is very poor

West of the Irrawaddy is the Hukawng Valley, through which runs one of the great routes from Assam to the banks of the Irrawaddy. It is watered by the Tanai River, which lower down becomes known as the Chindwin. It is a clear and rapid river and receives many affluents, the chief of which is the Tarong. The others are mostly small, except, perhaps, the Tawan.

On the left bank of the Irrawaddy is the Taping, which the Kachins call the Myun-kha. It rises in China, and it is a simple huge torrent for the greater part of its course. It only becomes navigable at Myothit, to which boats can ascend from the Irrawaddy, which it reaches about a mile and a half above Bhamo. Its chief affluent is the Nampaung, which is a torrent full of rocks and boulders, like most of the other streams of this part of Upper Burma.

North of the Taping is the Mole, which enters the Irrawaddy near Kyun-gyi, some six and a half miles north of Bhamo. Above this are the Nam Sang and the Nam Yen, both of them hill torrents pure and simple.

On the right bank of the Irrawaddy the chief affluent is the Mogaung River. It rises in the north-west of the Hukawng Valley and takes a south-easterly direction. As far as Kamaing it retains its old Shan name of Nam Kawng. *Nam* means water in Shan, and is the ordinary

prefix name of all streams in the Shan States. The Mogaung River is navigable for steam-launches as far as Laban. The lower reaches are very winding, and the river runs through a country covered with jungle and shut in by low hills thickly wooded.

Then comes the Nam Kwi, which flows parallel to the Irrawaddy to the point where it joins it six and a half miles below Hèchein.

Very little is known of the hill streams in the northern Kachin country. They are all small and run down deep gorges over rocky beds, with dense forest-clad banks. Bridges are unknown, and the paths which wind about among the mountains are hardly ever used except in the cold and dry seasons.

Amongst the mass of hills, three main ranges can be distinguished. The farthest west of these separates the Chindwin and Irrawaddy basins. Under the name of Patkoi it stretches north of the Hukawng Valley. Then under the name of Yawmongbum it forms the eastern boundary of this valley, bending a little to the south. The range known as the Kamon is a little to the north of Mogaung, and separates the Tanai drainage from that of the Mogaung River. East of this chain there is another, which separates the valleys of the Mali and the N'mai. This is in the heart of the

Kachin country. Very little of it is known except the south, in the Bhamo direction. Farther to the east are the high summits which separate the Irrawaddy and Salween basins. The ranges here have a mean altitude of at least seven thousand feet, with peaks rising to about nine thousand feet or more. They form a frontier between Upper Burma and the Chinese province of Yün-nan, which is not easily crossed. The range splits up in the south of the Kachin country into two, one separating the Irrawaddy and Taping drainages and the other the Shweli, which the Shans know by the name of the Nam Mao.

VIII. The country which I call the Shan-Burma tableland—that is to say, the portion of the Tai country which depends on Burma—is, properly speaking, the country between the Irrawaddy and the Salween. On the west it is marked off by the long line of hills which continue the Kachin Hills and run on till they lose themselves in the plains of Lower Burma. On the east it is no less distinctly marked by the deep and narrow gash which forms the course of the Salween. There are peaks on the Shan tableland which reach over seven thousand feet, though the average altitude of the plateau is from two thousand five hundred to three thousand feet. The ranges which shut in the

Salween range from four thousand five hundred to six thousand feet. On the other side of the Salween to the east we come to the Mèhkawng Valley, which forms the frontier with French Indo-China and Yün-nan.

The chief feeders of the Salween on the right bank are the Nam Pang, the Nam Tēng, and the Nam Pawn, all of which receive torrents as little navigable as they themselves are. On the left bank the Salween receives the Nam Ting, the Nam Ka, and the Nam Sing. They are all unnavigable in the rainy season, but not one of them is fordable at any time of the year.

IX. From the point of view of physical geography and climate Burma can be divided into four very distinct parts. There is first Lower Burma, with Rangoon as chief town, including the whole country between the sixteenth and twenty-second parallels of north latitude. Then there is Upper Burma from the twenty-second to the twenty-sixth degree, with Mandalay as chief town. The third division is that of the Shan States. Finally from the sixteenth to the tenth degree of north latitude there are the areas of Amherst and Tenasserim with the Mergui Archipelago.

Lower Burma is essentially an alluvial country, flat, watered by numerous rivers, and a rich rice-growing land. It is the wealthiest and the most

thickly populated part of the province. The climate is hot all the year round, except, perhaps, in the months of December and January, when the thermometer goes down to 12° C. (52° F.) at six o'clock in the morning, but soon rises far above this when the sun is high. The highest temperatures are in the months of March and April. On the 6th April, 1906, I noted a temperature of 42° C. (105° F.) in the shade. There are two well-defined seasons—the dry season, from the middle of October to the middle of May, during the time of the north-east monsoon, and the season of the rains, from May to October, while the south-west monsoon blows. At this time of the year the humidity of the atmosphere is excessive, and rain falls almost without interruption. It is at this time that the rice-plants are growing and field work is stopped. This is also the time of year for fevers, dysentery, and cholera, which yearly claims its victims, and now and then in the form of an epidemic claims its thousands. In spite of this it would not be just to say that the climate of Lower Burma is particularly unhealthy, and with reasonable care and attention to sanitary principles, most Europeans keep perfect health. I have seen English, Germans, Frenchmen who had spent thirty or forty years of their lives at Rangoon, Maulmein,

Bassein, or Prome, and yet were full of vigour. Rangoon, in particular, is nothing like so bad as Bangkok or Saigon. There is always a breeze from the sea even on the hottest days, and one never has the oppressive, still heat of Saigon.

Upper Burma has a much smaller rainfall and therefore the summer heats are much greater. Nevertheless in the months of July, August, and September, when the rains are heaviest in the Delta, there is always in Mandalay and the country near it a fresh breeze which is very much appreciated by Europeans, who otherwise could not sleep at night. Sometimes in November, or about Christmas, there are a few rainy days which freshen the air and make it almost cold in Mandalay.

On the Shan plateaux in the Chin and Kachin Hills the climate is equally different. In the Chin country it is very temperate, and the shade temperature rarely rises above 27° or 28° C. (81°-83° F.). In winter there are often frosts in the morning, and there are occasional snowstorms on the highest peaks, but this is rather a rare occurrence. It is much the same in the Kachin Hills, where the country is not very greatly different from that of the Chins, and is, in fact, much in the same latitude. But here the rainy season is found again very

markedly established between June and November. The high ranges attract the clouds and the rains are heavy.

In the Shan States the climate varies very considerably. From December till February or March it is quite cold, and in exposed places the temperature sometimes does not rise above 3° or 4° C. (37°-39° F.). During the hot season the shade temperature does not exceed 29° or 30° C. (84° or 85° F.), except in narrow, closed-in valleys where the sun's rays are nearly vertical, as, for example, in the Salween Valley, where the thermometer rises to 40° C. (103° F.) in the month of April. There is very seldom any snow, even on the highest peaks. The rains are very much less heavy than in the plains of Lower Burma. There is usually one heavy shower every day, but for the rest of the time the sun shines strongly and dries everything very fast, all the more because in such high country the water does not lie and runs off rapidly.

It is in this Shan country that the Burmese Government has established its sanatoria, and I know few pleasanter places than the stations of Maymyo to the north-east of Mandalay, and of Taung-gyi, to the west of Thazi. There the Europeans go to recover from the oppression of the plains, and it is in the first of these two

places that the Lieutenant-Governor and the Administration go to live from the month of April till the month of October.

X. The chief maladies of the Burmese caused by the fiery sun which pours down upon them all the year round are diarrhœa, dysentery, and cholera. Cholera every now and then takes an epidemic form, but it is usually endemic and regularly carries off some of the people. Malarial fevers are also very prevalent during the rainy season, and sometimes these take the serious form of typho-malaria, a kind of enteric fever peculiar to the tropics, which is found everywhere in the Indo-Chinese colonies and even in the south of China.

Smallpox causes terrible ravages when it breaks out in epidemic form. Sometimes it causes more deaths than cholera. Of skin diseases, leprosy is fairly common, and Europeans are not immune from it. I know of two missionaries and two mission Sisters who have been attacked by it and are being treated with no great hopes of success in the Léper Asylum at Kemmendine, near Rangoon, under the charge of the Rev. Father Freynet. At Mandalay there is also a leper asylum maintained by the Franciscan missionaries of Mary, whose devotion and charity are known throughout the whole Far East.

Finally there is the plague. The terrible plague of Yün-nan has made its way into Burma. In 1906 it took many lives in Mandalay, and it even climbed the hills and caused many deaths in the Maymyo Sanatorium.

Fevers and dysentery are what Europeans in Burma have most to fear. Thanks to sanitation and cleanliness, they can fairly easily guard themselves against cholera, leprosy, and the plague. There are some who die of these diseases, but the number is quite inconsiderable.

CHAPTER V

EXECUTIVE DIVISION AND TOWNS

Administrative divisions. II. Principal towns—Rangoon. III. Pegu. IV. Prome. V. Bassein. VI. Toungoo. VII. Akyab. VIII. Maulmein. IX. Tavoy and Mergui. X. Mandalay. XI. Sagaing. XII. Shwebo and other towns. XIII. Shan towns. XIV. Sanatoria.

I. SINCE the conquest of Upper Burma in 1885 the administration of the whole of the ancient Burmese Kingdom as a British possession has been settled as follows:—

1. Two provinces: Lower Burma, Upper Burma.

2. Protectorate of the Shan States formerly tributary to the Mandalay Court.

Lower Burma itself is divided into four Divisions: Arakan, Pegu, Irrawaddy, and Tenasserim.

Each of these Divisions includes an unequal number of Districts. Thus—

Arakan has three Districts: Akyab, Kyaukpyu, and Sandoway.



CIGAR GIRLS

Executive Division and Towns

Pegu has five Districts: Rangoon Town, Hanthawaddy, Pegu, Tharawaddy, Prome.

Irrawaddy has five Districts: Bassein, Myaungmya, Ma-ubin, Pyapôn, and Henzada.

Tenasserim, six Districts: Toungoo, Salween, Thatôn, Amherst, Tavoy, and Mergui.

Upper Burma in the same way is divided into four Divisions: Magwe, Mandalay, Sagaing, and Meiktila. These in their turn are subdivided as follows:—

Magwe, four Districts: Thayetmyo, Pakôkku, Minbu, Magwe.

Mandalay, five Districts: Mandalay, Bhamo, Myitkyina, Katha, Ruby Mines (also called Mogôk).

Sagaing, four Districts: Kyauksè, Meiktila, Yamèthin, Myingyan.

II. Rangoon is the capital of the province—that is to say, of the territory which the British call the Province of Burma—and, as a consequence, it is the seat of the local Government. In 1852 it was merely a fishing village. At the present moment, in 1911, it is a city of about three hundred thousand inhabitants (1911 Census figures 293,316), and has a trade greater than that of any other Indian port, except Calcutta and Bombay. The sea trade, which will be dealt with in detail in another chapter, mounts up to more than three hundred million

rupees. Thirty years ago it was a bare fifty millions. The population of Rangoon is more Indian than Burman, because of the continuous immigration of Indians from Madras and Bengal, and also of Mohammedans from the North-West Provinces.

It is less Burmese than Mandalay, but it is a great business town and it is built in European fashion, with great broad avenues, fine monuments, and commercial houses in considerable numbers.

It stands about twenty-one maritime miles from the sea on the left bank of the Rangoon River, at the point where it is joined by the Panlang Creek, the Pazundaung Creek, and the Pegu River. The Burmese suburbs are situated on the right bank of the Rangoon River and the left bank of the Pazundaung Creek. The small village of Rangoon, under the name of Dagôn, was founded, according to Burmese tradition, somewhere about 585 B.C., by two brothers, Pu and Tawpa, who built the Shwe Dagôn Pagoda on a small hillock to enshrine some relics of the Buddha which they had received from the Buddha himself. The village disappears from history until 744 A.D., when it was rebuilt by Punnareka, King of Pegu, and by him called Aramana. The Burmese took possession of it in 1413 A.D. The town changed

ownership very often and was the scene of repeated fights between the Burmese and the Talaings. In 1763, however, the Burmese King Alaungpaya took final possession of it, repaired the Shwe Dagôn Pagoda, and called it Yangôn, which the British, following the Arakanese pronunciation, have changed into Rangoon. The town was first occupied by the British in 1824, and they stayed there till 1827, when it was restored to the Burmese. It was retaken in 1852, and has been in British hands ever since.

The sights of Rangoon are the pagodas and monasteries, the bazaars, the public monuments and mills, the military cantonments, and the lakes.

There are very many pagodas in Rangoon and in the suburbs. The two most important are the Shwe Dagôn and the Sulé Pagoda. The great Shwe Dagôn Pagoda is the finest and the oldest of all the pagodas in the country. Pilgrims come to visit it from every part of both Upper and Lower Burma. Its special sanctity is due to the fact that it is the only pagoda known to Buddhists which contains true relics of Gaudama and of the three Buddhas who preceded the last Buddha Gaudama. Accordingly, not merely the Burmese, but also Cambodians, Siamese, and the religious from Ceylon make pilgrimages to the shrine. It stands a little less than two

miles from the riverside. The little hill on which it stands has been levelled and paved. It is a couple of hundred feet high, about 980 long, and 650 broad. The approach from the western side was closed by fortifications during the British occupation, and these fortifications still remain. The south approach is the easiest and the most used. At the foot of the ascent there are two huge leogryphs, made of brick, covered with plaster. The roofs are of carved teak, supported by huge pillars, some wood, some of masonry. On the walls under the roof there are frescoes, painted in bright colours, representing the different episodes in the life of Sakya Muni, as well as sketches of the terrors of hell, which are there for the warning of the wicked. The steps of the different flights of the covered way leading to the platform are worn by the feet of the pilgrims. The whole length of the ascent on both sides is occupied by beggars, who show all the horrible ravages of leprosy. There are great numbers of trays on both sides, on which pretty Burmese girls display for sale gold leaf, sacred flowers, candles, and other offerings. There are even little refreshment-stalls here and there, at which for a few coppers pilgrims can relieve their wants and exertions. At the end of the colonnade the platform is reached. This is circular, and there is a free,

open path all round. In the centre rises the famous pagoda. It is very large at the base and ascends in constantly diminishing diameter to the summit, and the whole surface is thickly overlaid with gold. There are statues of lions and of other animals of a fabulous kind at the foot of the pagoda, as well as four chapels enclosing statues of the Buddha and richly decorated. There is a huge bell in the north-east angle, under which six men can stand erect. This bell was presented in 1840 by King Tharawaddy, and it has a curious history. In 1852, after the second Burmese war, when Rangoon was taken, the English wanted to take the bell as a trophy to Calcutta. By a piece of bad management or bad luck as it was being hoisted on board it fell into the Rangoon River and attempts to recover it were fruitless. Some years after the Burmese asked if the bell would be restored to them if they succeeded in raising it. The British authorities gave them the required permission in the full belief that they would never manage it. But the Burmese set to work in earnest, got the bell out, and carried it back in triumph to the place where it now is.

It would be impossible to give a description of all the little shrines and of the offerings which are crowded closely together all round the edge of the platform. They represent regular fortunes

in gold and silver and precious stones. Night and day the pilgrims come and go. There is no time of the year when there is not some one at the pagoda, and it is especially on festival days that one should go to see the happy crowd pressing round the images of the Buddha. It is quite a fairy spectacle, all the more because of the bright and rich colours of the Burmese dress.

The Sulé Pagoda, not far from the river bank, should also be visited, although it is nothing like the great pagoda in splendour. It enshrines a somewhat curious representation of the Sulé *nat*, or spirit, who is the guardian genius of the hill on which the Shwe Dagôn stands.

Besides the pagodas there are some interesting monasteries to be seen at Kemmendine, a suburb of Rangoon, but the most typical are those on the road round the lakes. They are all built of wood and rise in gracious elegance in the midst of the luxuriant tropical vegetation.

There are three great bazaars or markets. In Burma the bazaar is everywhere the chief place for retail buyers and sellers. Everybody finds there everything of which he may stand in immediate need: food, clothes, cloth of all sorts, pottery, paper and articles in paper, medicines, perfumery, objects for the toilette, even jewellery. Everybody goes there, some to buy and sell,

but many simply to gossip, flirt, and hear all the latest scandal.

Among public buildings the most notable are the High Court, the Post Office, the Secretariat buildings, a huge block where all the administrative bodies have their offices and not long built. Other buildings are: the Roman Catholic Cathedral, a noble example of Gothic architecture, due to the genius of a single man, Father Jansen, of the Foreign Missions in Paris; the General Hospital; the different colleges, among which is noteworthy the College of the Brothers of the Christian Seminaries; and, finally, on the way to Kemmendine, Government House, the residence of the Lieutenant-Governor, a fine three-storied building which cost nearly £40,000.

But the chief charm of Rangoon is the lakes, whose banks are laid out in magnificent gardens, which are kept up with great taste and much care.

The traveller who has a day to spare and who is not too much afraid of the heat will do well to go to see the ancient town of Syriam, formerly the site of the factories set up by the Portuguese, Dutch, French, and English. The Burmese assert that the town was built in 787 A.D., but nothing whatever is known of its history till the sixteenth century, when it was given by the King of Arakan to Philip de Brito,

who with his Portuguese followers had helped his Majesty to conquer Pegu. In 1613 Syriam was besieged and taken by the King of Ava, who put all the Portuguese to death except some who were sent as prisoners to Upper Burma, where some of their descendants are still to be found. Nothing now remains of the spacious and flourishing houses which made the glory of Syriam, except the ruins of churches, some tombs, and crumbling walls. Nevertheless, the church was rebuilt by Monsignor Nerini, the Bishop of Pegu, about 1725, but the Bishop was slain in 1756 by order of Alaungpaya, and the Mission was transferred to Rangoon. The ruins of the church are now overgrown with jungle and serve as a home for all manner of reptiles.

III. Pegu is reached by train and is a town with a population of seventeen or eighteen thousand. It is the headquarters of the District of the same name, and is said to have been founded in 573 A.D. by emigrants from Thatôn. Later it became the capital of the Talaing Kingdom. Europeans who made their way there in the sixteenth century describe it as a huge town, very powerful and magnificent. It was almost entirely destroyed by Alaungpaya when he overthrew the Talaing Kingdom, and has now lost all its ancient

splendour. The chief thing to be seen in it is a notable pagoda and a colossal statue of the Buddha.

IV. Prome is a town of about thirty thousand inhabitants and is headquarters of the District. It is a very ancient city, and was before the Christian era the capital of a great kingdom. The town extends from the foot of the low Prome Hills to the Nawin River, and a small suburb stands on the farther bank. The administrative buildings line the banks of the Irrawaddy, as do the public garden, the English church, and the clock-tower. The main street runs from one end of the town to the other and is cut at right angles by the other streets. In the dry season, when the water is at its lowest, boats come up to Prome laden with *ngapi*, a fish-paste, whose evil smell pervades all the riverside quarters of the town. There are two interesting pagodas at Prome, the Shwe Sandaw and the Shwe Nat-taung.

The ruins of ancient Prome are full of interest, and excavations there have resulted in the discovery of very curious statues. In 1906 the late General de Beylié, who has left so many valuable studies of Hindu architecture, carried out some research work here under the authority of the Government of India. From Rangoon to Prome is a night's journey by train.

V. Bassein has a population of about forty thousand and is the headquarters of the Irrawaddy Division. The Shwe Môkdaw Pagoda, which stands on a small eminence on the left bank of the river, is the centre of a fort built by the British, which has now been turned into a public garden. To the east is the Myothit quarter, with two main streets running east and west and ending in a level space covered with pagodas, rest-houses, monasteries, and a great many stone images. On the other side of the river is the Thinbangyin suburb, where the rice-mills and the chief commercial houses are situated.

VI. Toungoo is on the Rangoon-Mandalay railway, and is a town of twenty thousand inhabitants, which formerly was the frontier-post between British Burma and Independent Burma. The old fort is still in existence and is occupied by military police. Toungoo is pleasantly situated on the right bank of the Sittang, a little to the north of the point where the Kabaung River enters it. This stream has been bridged, and the train passes about one and three-quarter mile from the town. There is nothing of any particular note in Toungoo. The head of the Italian missions lives there.

VII. Akyab, which is now the headquarters of the Arakan Division and the third port in

Burma, was, to begin with, a mere fishing village. Its importance dates from the time when it was chosen to be the chief town of Arakan, at the end of the first Burmese war in 1826. The population exceeds forty thousand. Fifty miles away is Myohaung, the old capital of Arakan, where there are some very fine ruins. There are great numbers of rice-mills in Akyab.

VIII. Maulmein is the second largest town in Lower Burma and has a fine port. A few years ago the only way there was by sea, but now there is a railway from Rangoon, which passes by way of Pegu, Kyaikto, Thatôn, and Paung to Martaban. The railway bridge over the Salween which will connect Martaban with Maulmein remains to be built, but its construction is only a question of time. Maulmein is the head-quarters of the Amherst District and of the Tenasserim Division. It stands on the left bank of the Salween, at its junction with the Gyaing and the Attaran, and opposite the point of confluence of these three rivers is the large island of Bilugyun, which, through the silting up of the channel, is gradually joining the mainland. To the north, on the opposite bank, is Martaban, formerly the capital of a kingdom, now a mere village. The low hills which form the end of the Taungnyo chain run from north to south through the town, and divide Maulmein into two

parts distinct from one another, but meeting at the northern base of the hills on the banks of the Gyaing River. These hills are almost entirely covered with pagodas, some in ruins, with shrubs and trees springing from fissures in the bricks, others all white or covered with gold-leaf. The neighbouring monasteries are particularly rich in carved teak.

The view over the town from these hills in the centre is perhaps one of the most attractive in all Burma. The surroundings of the town are also very pretty, with evergreen trees, pagodas, and monasteries hidden in clumps of bamboo. Maulmein stands between the mountains and the sea, and the whole neighbourhood is picturesque in a spacious way that is seen nowhere else in the ports of Indo-China.

The population of Maulmein is about sixty-five thousand. At one time it rivalled Rangoon, but it has now fallen very far behind. This is, perhaps, due to the fact that Maulmein was more particularly the teak trade port and the point of exit of the timber which came from the Karen-ni forests and from the Siamese forests of Chieng-mai. These forests have been overworked. The teak output has fallen off, and Maulmein has suffered accordingly. There is a great deal of teak-carving in the town. The monasteries are loaded with it, and the Uzina pagoda in particular

has wooden figures well worth seeing and absolutely lifelike in their expression.

After the pagodas there are the caves, which are a little distance from the town. The chief are the Farm caves on the Attaran River, the Dhammathat caves on the Gyaing, the Pagat caves on the Salween, the Kogun caves on the Kogun Creek near Pagat, and, finally, the Bingyi caves on the Dôndami River. The first are especially worth seeing. They have evidently been worn out by the sea. As might be expected, they are full of images of the Buddha, shrines, and expiatory offerings left by Buddhist pilgrims.

IX. Down south, along the Malay Peninsula, is situated Tavoy, on the river of the same name, and headquarters town of the District. Tavoy is a place with twenty-five thousand inhabitants. It stands low, and parts of it are inundated at high tide, while the whole place is fearfully boggy throughout the rains.

After passing Tavoy one enters the Mergui Archipelago, a very extensive group of islands, which begin with Tavoy Island, and extend to the south far beyond the Burmese limits of British territory. Everything in this archipelago is full of exceptional picturesque beauty: bays and creeks, capes and promontories, high hills and stretches of level beach, rocks and sand, springs and waterfalls, mountains, plains, and

precipices, all are found in proportion. The islands are almost uninhabited, and are the last home of a singular race, the Salôn, or Selung, who rarely leave them for the mainland. The two chief products of the islands are the swallows' nests, of which the Chinese are so fond, and *bêche-de-mer*, or sea-slugs. Besides these there is little else but serpents and wild animals. The chief town, Mergui, stands on an island at the mouth of the Tenasserim River, which enters the Bay of Bengal a little under two miles north of the town. Mergui has a very mixed population of about fifteen thousand. Pearl-fishing and mining and rubber plantations are the chief resources of the District.

X. Mandalay, which was the capital of the Burmese kings, is now a simple British District headquarters town. It was founded in 1856-7 by Mindôn Min. It consists of two very distinct parts. There is the walled town, the old royal town, which the English have retained in a sort of a way, in so far that the barracks and the principal administrative buildings are set up here; and there is the town beyond the walls, which is the town of the Burmese and the trading population. The walled town is a square with four enormous brick walls, machicolated and supplied at intervals with gates which correspond with bridges over the wide moat which surrounds the walls on all sides.

The great sight of Mandalay is the Nandaw, the Palace, which is in the exact centre of the walled town. This is a collection of teak buildings, magnificently carved, and some of them even gilded. The royal apartments are supported by very lofty teak posts, lacquered and covered with gold-leaf. The walls, also of wood, are covered with a mosaic of coloured glass and mirrors, which has a very effective appearance. Unfortunately, there is nothing now to be seen except the buildings themselves, and in a corner a small museum, where a few royal relics are kept.

The Palace has nine throne-rooms, which were used by the King according to the rank of the persons he was receiving. There was the lion throne for the reception of princes of the blood, Ministers of State, and the Shan chiefs. The throne of the duck (Hentha) was used for the reception of foreigners. The others were the elephant throne, the water-festival (or humble-bee) throne, the shell throne, the deer throne, the peacock throne, and the water-lily throne, each carved with adornments which followed the name. In the eyes of the Burmese, the King's palace was the centre of the universe.

It was in the royal gardens round the palace, in a little summer-house, where the King used to go for comfort during the great heats, that

General Prendergast received the submission of King Thibaw. An inscription on the wall at the entrance records this historical fact.

Besides the palace, and outside its stockade, things to be seen are the royal tombs, Mandalay Hill, and a multitude of pagodas of all degrees and of all sizes. Among the most interesting are the Golden Monastery and the Arakan Pagoda, which is more correctly called a temple rather than a pagoda. The 450 pagodas of the Kuthodaw, or Royal Merit Pagoda, which form one remarkable group, must not be omitted. King Mindôn, who was noted for his piety, covered Mandalay, and one might almost say the whole of his country, with pagodas and monasteries. In order that the sacred Buddhistic books might have an imperishable record, he developed the idea of having the most correct text of the commandments (the Book of the Law) engraved on 450 huge stones, all of one size. These marble slabs were set up in regular rows inside an enclosure, each with a shrine over it to protect it from the ravages of time, and then in the centre a pagoda was built.

The Golden Monastery of the Queen is fairly well preserved, but I regret to have to say that it is crumbling away in many places. The old monk who is in charge of it allowed me to go all over it, and I noticed that many of the walls



THE KUTHODAW OR ROYAL MELIT PAGODA

and many of the pillar posts stand in need of repair. It is entirely built of teak, profusely carved and gilded.

The Arakan Pagoda, or Temple, is the most sacred place in Mandalay and in all Upper Burma. It stands outside and to the south of the town, and enshrines a miraculous image of the Buddha which, according to the story, was carried over the mountains from Arakan in 1784. When it arrived it was in sections, which no one was able to put together. The Buddha took this task upon himself, and the statue is therefore looked upon as particularly sacred, and is visited by pilgrims all the year round. In European eyes the temple has nothing distinguished about it, and has no special attraction beyond the lotus-tank, where huge turtles are fed by the religious. It would take a full month to visit all the pagodas and monasteries in Mandalay.

Fine broad avenues intersect the town at right angles to one another. Many European houses have been built; commercial houses have established themselves, and Mandalay is quite a pleasant place to spend some time in, although there is not the bustle and the business which one sees in the port towns. There are schools, a club, a hospital, and churches, which have been set up in various parts of the town. French missionaries have congregations in all the

different quarters with Burmese, Chinese, and Tamil schools. French Sisters of Charity have also established themselves, as well as the Brothers of the Christian Schools.

Mandalay has a garrison of white troops as well as of natives of India.

XI. Among the other important towns of Upper Burma, Sagaing may be noticed. It is twelve and a half miles from Mandalay, on the right bank of the Irrawaddy, at the end of a range of hills which forms for a distance of about ten miles the river bank on that side. Sagaing is the terminus of the Mu Valley railway, and from there the river is crossed by steam-ferry to Amarapura on the other shore. Proposals for the construction of a bridge have been under consideration, but up to the present nothing has been done to carry them into effect.

Sagaing is the headquarters of a Division and District, and has a post and telegraph-offices and a hospital. There is a considerable silk-weaving industry, and the Sagaing mangoes have a great name. The population is not very large. There are something like ten thousand inhabitants. Nevertheless, it was the capital of the country in 1385 A.D., and again from 1760 to 1764. As everywhere else in Upper Burma, there are great numbers of pagodas to pay a visit to.

XII. Shwebo, Meiktila, Monywa, Katha,

Minbu, Kindat, and Myitkyina are the other important centres of upper Burma. Myitkyina is quite a small place, but it is interesting because it is the terminus of the great Central Burma railway. It is about seven hundred and fifty miles from Rangoon, and stands on the right bank of the Irrawaddy, which here, during the dry season when the water is low, is a charming stream with clear water and a stony bottom. During the rainy season there is a rise of thirty-eight to thirty-nine feet, and it becomes muddy. The Chinese frontier is distant about five-and-twenty miles to the east of the river, and the boundary runs along a mountain range with peaks rising to eight or nine thousand feet. The Sansi Pass, which leads to Tali-fu, has an altitude of six thousand five hundred feet.

About five-and-twenty miles north of Myitkyina is the confluence where the Mali and the N'mai join to form the Irrawaddy proper.

South of Myitkyina, also close to the Chinese frontier, is Bhamo, on the left bank of the Irrawaddy. This is the first Burmese town reached in coming from the Chinese province of Yün-nan, and it is the central point of trade with South-Western China during the dry season. The town has nothing notable about it except the extraordinary mixture of races which live in it—Shan, Burmese, and Chinese.

XIII. There are some of the Shan villages—they can hardly be called towns, because there are no real towns—which are more important than the rest, because they are the seats of the Sawbwas or chiefs, or of the British political officers. Thus in the Southern Shan States there is Taunggyi, to the east of Thazi and Yamèthin. It stands on a plateau on the Sintaung range. There is no great population, not more than two thousand, with a garrison of three hundred military police.

In 1905-6 a party of engineers was sent to Taunggyi to make a trace of a railway which was to start from Thazi eastwards. The idea was to make Taunggyi a sanatorium, for the climate there is excellent for Europeans. The idea of carrying the railway on to Taunggyi has been abandoned, but the Southern Shan States railway is in process of construction and should reach the plateau in 1914.

East of Taunggyi, and in the same general line, is Kēngtūng, the capital of the Shan State of the same name, which is the largest of all the Shan States. This is one of the most important of the British posts, and they have an Assistant Political Officer there, with a strong Gurkha garrison. Unhappily, the Kēngtūng climate is unhealthy and there is constant malaria. For this reason a post, Loimwe, has been established

on a hill range not far off, at a height of three thousand feet above the valley, and this is connected with the town by an excellent mule and cart road.

Hsipaw, on the Mandalay-Lashio railway, is the capital of the Sawbwa of that State, in the Northern Shan States charge, and a British officer resides there.

Lashio is the terminus of the railway from Mandalay, and is the headquarters of the Northern Shan States, and of the Superintendent in charge of them. The village—for it cannot be called a town—has several European buildings, the Residency, the barracks, and the post and telegraph offices. The population is a very mixed one, and Hindus, Mohammedans, Burmans, and Shans each live in their own separate quarters.

XIV. In a very hot climate like that of Burma, where Europeans lose their strength rapidly, as they do in the plains of India, it was useful and indeed necessary to look for some place at a suitable altitude, healthy, and not too damp, where a sanatorium might be established, on the example of those which are to be found all over India. In 1885 Colonel May was in command of a regiment at the small village of Pyin-u-lwin, on the Shan plateau, at an altitude of three thousand six hundred feet, to the north-east of

Mandalay and a little more than thirty miles distant from it. Colonel May was greatly struck by the beauty of the neighbourhood and the excellence of the climate, and on his suggestion visitors from the enervating Delta began to come in gradually increasing numbers. The change of temperature did them so much good that they had houses built; numbers of Indian shopkeepers came to settle, and the name Pyin-u-lwin was given up in favour of Maymyo ("the town of May"), which was unanimously adopted to commemorate the name of the founder of the place.

Maymyo is now the regular Burma hill-station. The Lieutenant-Governor and the heads of departments spend the summer here. A considerable town has been formed and excellent roads have been cut through the jungle. A reservoir for the drinking-water of the station has been constructed in the neighbouring hills. Shops of all kinds have been established, and all necessaries are easily obtainable. There are Japanese jinrickshas and tikka-gharis, or hackney cabs, and Maymyo is reached from Mandalay in four hours by rail, leaving the main line at Myohaung junction, a short distance south of Mandalay. The change from the plains to Maymyo is a very pleasant experience. There is a delightful freshness in the air, and all around one sees trees of great variety—teak, pine, ash,

and bamboos, besides many others. Lilies, carnations, roses, peonies, zinnias, petunias, phlox, and marguerites flower all the year through, and marvellous orchids burst into blossom on all sides during the rains. Creepers festoon the biggest trees in great profusion, and deck them with brilliant blossom. The heat is never too great nor the cold too severe. It is a real paradise.

The British matrons come to live at Maymyo with their babies, and the scene outside the club-house when the regimental band plays is a regular kindergarten.

Maymyo has a European garrison and a regiment of Gurkhas. There are schools, missions, Catholic and Protestant, a bazaar, or market, where the Shans from the country round about come every fifth day to sell the European vegetables which they have taken to growing. They are of quite excellent quality.

The population of the town is mostly made up of natives of India and of Burmese. The total, with the adjacent centres of Wetwin and Pyintha, amounts to something like twenty thousand persons. The 1911 census population of Maymyo itself was 11,974.

Round Maymyo the people are mostly Danu, a Shan-Burmese hybrid race. Although Maymyo is geographically in true Shan territory, it is

actually a subdivision of the Mandalay district and thus in Burma proper.

Maymyo may be the best recognized hill station, but it is not the only one, for there are many people who cannot go there. It is far from Rangoon and the stations of Lower Burma. Consequently the people of Rangoon have chosen for themselves a site in the hills not far from Toungoo, and have established a hill station in a small village called Thandaung. It is a convenient place for mercantile people who can go there on Saturday mornings and get back to work again at midday on Monday.

There are others who have chosen Taung-gyi in the Southern Shan States, though it is seldom visited by any except officials. There can be little doubt that with the extension of railways there will be other hill-stations in the mountains with which Burma is so generously supplied. The railway from Thazi will come no nearer than fourteen miles from Taung-gyi. It is already completed and opened to traffic to the sixteenth mile, and it is expected to be open as far as Kalaw and on to Aungban in 1914. Kalaw is already marked out for a sanatorium. It is said to be superior to Maymyo in every respect, and there are many who consider that Government headquarters may be moved thither. But this is not very likely, for the building of Maymyo

must have cost a great deal, and it seems likely to remain the final headquarters. Moreover Maymyo and its neighbourhood are very healthy, and it is only four hours' railway journey from Mandalay, which is a weighty consideration. There are two trains daily from Rangoon, and two which leave Maymyo daily direct for that place.

CHAPTER VI

THE ADMINISTRATION

I. Administration — The Lieutenant - Governor and his Council. II. The different departments. III. Divisions and commissioners. IV. Forests. V. The Judicial Bench and the magistracy. VI. Police. VII. Public Instruction, Public Works, &c. VIII. The army— Regiments and garrison posts. IX. Land administration. X. Burma and India.

I. BURMA, as a province of the Anglo-Indian Empire, takes its orders from the Viceroy and Governor-General, who has his residence in Calcutta, and from now on, under the orders of King George V, will live in Delhi, the ancient capital of the Great Mogul. The wish is to restore the old glories, but the idea seems somewhat chimerical in our modern days. As a matter of fact, all Indian life concentrates in the ports, and Calcutta is no less marked out to-day than it was yesterday as the permanent capital of the commercial and industrial Empire which is the true Hindustan.

Although Burma depends upon India from

the point of view of general politics, the province is independent as far as its own administration is concerned. The Lieutenant-Governor has a Council, with power to pass laws and regulations for the benefit of the country. The representative of British authority is therefore in no way hampered by too strict dependence either on the Government of India or the Home Government. He certainly has more liberty of action than the French Governor of Indo-China, who in quite small matters is controlled from Paris. As a natural consequence he never ventures to come to any decision until he has the authority of the French Colonial Office behind him.

Under the Lieutenant-Governor and his Council come the secretaries of departments, political, legislative, Public Works, Customs, Excise, and Finance, who work in subordination to the Lieutenant-Governor under the supervision of the Chief Secretary.

II. After these come the heads of the various administrative departments :—

The Settlement Commissioner ;
The Director of Agriculture ;
The Chief Conservator of Forests ;
The Commissioner of Excise ;
The Commissioner of Customs ;
The Deputy-Postmaster General ;
The Superintendent of Telegraphs ;

The Accountant-General;
The Inspector-General of Prisons;
The Inspector-General of Police;
The Commissioners of Rangoon;
The Port Officer;
The Director of Public Instruction;
The Bishop of Rangoon;
The Inspector-General of Civil Hospitals;
The Chief Medical Officer;
The Chief Engineer;
The Superintendent of Archæological Survey;
The Superintendent of the Civil Veterinary Department.

The heads of Post and Telegraph Departments and the Accountant-General are Imperial officers under the Government of India, and so are the officers of the Public Works and Forest Departments.

III. There are eight administrative divisions: Arakan, Pegu, Irrawaddy, Tenasserim, in Lower Burma; Magwe, Mandalay, Sagaing, and Meiktila, in Upper Burma. A Commissioner has charge of each of these. The Shan and Karen-ni States have an administration of their own. They form a sort of Protectorate under the government of their chiefs, controlled by British officers.

Each of the eight large divisions is subdivided into a varying number of districts ranging from

three to five, over which preside Deputy-Commissioners, with Assistant-Commissioners to aid them.

These Commissioners and Deputy-Commissioners for the far greater number belong to the Indian Civil Service, but there are some uncovenanted officers who entered the service at the time of the annexation of Upper Burma in 1886, and these form the Burma Commission, or Provincial Civil Service. Apart from the specialized services, such as Public Instruction, the Public Works, the Forests, the Medical Service, the Veterinary Department, and the Post and Telegraph officers, the civil officers are men-of-all-work. They are alternately administrative and revenue officers and judicial officers. Sometimes they are mayors or municipal officers, as in Rangoon or Maulmein, and sometimes subdivisional officers in the villages. They administer the country and act as judges; they sometimes pass into the Excise or Customs Departments and collect dues. They are the mainspring of the administration, and must be able to undertake every branch of civil employment. They have to work hard, but are well paid, and at the age of fifty-five are entitled to have a pension of a thousand a year if they belong to the Indian Civil Service. All the British administrative officers in Burma are well-educated and capable men, who know the country of which they are put

in charge, and are fluent in its language. They begin their work in small areas and charges under the title of "subdivisional officers," and gradually, according to the ability they display, rise to the rank of Deputy-Commissioners and Commissioners, some more rapidly than others. In the subordinate executive service the Burmese Government employs many natives of the country, who, under the name of *Myoôks*, act as revenue and judicial officers, and fill all the minor executive posts.

IV. The Forest Department includes a Chief Conservator; four Conservators; sixty-seven Deputy and Assistant Conservators, and about a hundred and fifty officers of lower grade. Formerly all the forest officers studied in the Forest School at Nancy, but for some time they have been sent in equal numbers to France and Germany, where they are attached to the Forest Service under the authority of the Governments concerned. The Forest Service is perhaps one of the less well organized, but in saying this we must be understood to say that it is not nearly strong enough. It is easy to understand that the vast extent of the area covered by the forests would call for a staff three times that which is actually employed. This is especially the case if an end is to be put to the *taungya* cultivation, as is the expressed resolve of the Government

and of the Chief Conservator. *Taungya* cultivation is the burning of the forest to prepare the ground. An increased staff is also required to watch the teak nurseries and regeneration, to prevent the complete destruction of certain kinds of timber, and to check the spendthrift waste of resources which, if they are properly looked after, will be of permanent advantage to the country. There are bitter regrets that the measures necessary to reserve teak were not taken earlier, and now there will be a delay of many years before the young plantations can produce a regular supply of timber. Want of energy and want of industry are unfortunately very common in the subordinate grades. The reason for this state of things is to be found in the fact that the pay and the prospects are not good enough to attract really capable men. Proposals for raising the salaries of the different grades have been made, and it may be hoped that with the establishment of a School of Forestry at Tharawaddy, a supply of better qualified recruits will gradually be obtained; for it is beyond dispute that so far the half-castes, who form the entire body, or very nearly the entire body, of the subordinate grades of the different services, have shown no special desire for forest work, and have always preferred the Public Works Department to all others.

X. The Judicial Service includes a High Court in Rangoon, composed of a Chief Judge and five puisne judges. At Mandalay there is a Judicial Commissioner for Upper Burma. In all the towns of both parts of the province, Upper and Lower, there is a regular series of District Judges and District Magistrates, and it is not uncommon to see Burmans, Mohammedans, and Parsis on the bench as well as Englishmen.

The stations where the office of judge is reserved for members of the Indian Civil Service or the Burma Commission are the following: the Divisions of Hanthawaddy, Prome, Toungoo, Maulmein, Bassein, Tenasserim, Arakan, Magwe, Mandalay, Sagaing, Meiktila, and the Districts of Mandalay, Amhêrst, Thatôn, Hanthawaddy, Prome, Tharawaddy, Pegu, Toungoo, Myaungmya, Maubin, Pyapôn, Bassein, Henzada, Akyab, and as a general thing all the other districts of Burma, except Rangoon and the Arakan and Salween hill tracts.

I have taken the following details regarding the judicial branch as it was reorganized in 1907-8, and as it now exists, from the Report of the Administration of Burma. The administration of civil and criminal justice is under the control of the High Court of Lower Burma, with four judges, and of the Judicial Commissioner of Upper Burma. Six territorial Divisions and

eight Districts have Session Judges; Judges of Division are also Criminal Judges; District Judges have only civil powers. Everywhere where the executive power is not separated from the judicial it is the Commissioner who is at the same time administrator and magistrate. The separation of the executive and the judicial sides by the appointment of District Judges extends to the most important districts of Lower Burma, as well as to Mandalay, but it does not extend to Kyaukpyu, Sandoway, Salween, Tavoy, Mergui, and Thayetmyo, where the Deputy-Commissioner continues *ex officio* to exercise the functions of District Judge. Nor does it extend to Rangoon, where the High Court takes the place of the District Court; nor to the Arakan hill tracts, which are governed by special laws. In the other thirteen Districts of Lower Burma the Deputy-Commissioner does not take up civil cases. Sometimes four, sometimes three Districts are grouped under the same judge, who sits in all of them, one after the other. In addition to their civil powers it is commonly the case for District Judges to be invested with the necessary criminal powers, so as to sit on the criminal side and to help a Deputy-Commissioner, overburdened with work. They may also hear appeals from decisions of the Second or Third Class Magistrates.

The Commissioners of Pegu, Tenasserim, and Irrawaddy are freed from all civil and criminal work. The Magwe and Minbu Commissioner has an assistant for the Thayetmyo District, but the Commissioner of Arakan continues to be both civil and criminal judge.

Although the Rangoon Town District is in the Hanthawaddy Division, the assizes and criminal appeal cases are taken by the Rangoon High Court, and not by the Court of the Hanthawaddy Division. The provincial judicial service and the justices of the peace come to the assistance of the subdivisional officers and of municipalities and relieve them of the judicial cases which exceed their powers of work. The High Court takes cognizance of all cases which concern British subjects who are whites. It has also powers in Rangoon Town and District in both civil and criminal matters, to take cases in appeal, and even to intervene in bankruptcy cases. In Upper Burma the powers of a Court of Appeal lie with the Judicial Commissioner, except in criminal cases where a white British subject is involved.

All the headmen of villages have certain limited judicial powers, and not a few of them have the powers of a civil court, but they can never take a criminal case. Finally, there are the Justices of the Peace in the chief municipal



MONASTIC SCHOOLING

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towns, and these are generally of Burmese race.

VI. There are two kinds of police. There is the Civil, which, as in all other countries, is made up of and administered by superintendents, constables, warders, and so on; and there is the Military Police. The Military Police were created in 1886 to deal with the dacoits, or rebel Burmese, who did not want to submit to the new Government and rose in revolt all over the country. The force was not done away with after the pacification, and it is still in existence. It is recruited from Indian soldiers and has Indian officers, who have special privileges given them, and the battalions are under the command of officers from the British Army. They serve for a five-years term and are attracted by the high pay. At the end of his five years the officer has to return to regimental duty for three years, and can then again enter the Military Police for a further five years, and all the time, while seconded, he retains his seniority in his own regiment. Nowadays the Military Police serve mostly in the Shan States and in the frontier Districts.

VII. Public Instruction is looked after by a Director, six Inspectors, who are English, and a considerable number of sub-inspectors, who are almost all Burmese. There are High

Schools at Maymyo, Maulmein, Prome, Bassein, Rangoon, Minbu, Tavoy, Pegu, Mergui, and Sagaing. There are Normal Schools in Mandalay, Rangoon, and Maulmein; an Engineering School at Insein, near Rangoon; and a college in Rangoon.

Public Works, Posts and Telegraphs, Public Health, the Ecclesiastical Service, Customs, Excise—everything is organized, officered, and managed in the most admirable way. The Province governs and administers itself, under the control of the Viceroy of India and of the Secretary for India, who lives in London. The Home Government, however, never interferes in the management of internal affairs. If we compare French Indo-China with British Burma, what shall we find? On the side of Burma there is an Administration that knows what it wants, wealth which grows day by day, large capital which does not shrink from coming to develop the resources of the country, which all know to be well governed and where they feel that they are perfectly safe. On the other side, in Indo-China, there is an administration which is constantly shifting and never seems to know what it wants to be at; there are constant abrupt changes according to the fancies of the Governors —and there are certainly enough of them at Hanoi. The trade and the industries of the

country are not what they might be nor what they ought to be, because we are afraid to sink our capital in the colony on account of the uncertainty of the future and the doubt what the next day may bring forth. Our French colonies have too many people who want to manage them from Paris; every one has a scheme of his own for the development of them and the way of making them prosperous, and the end of it all is too many doctors for the health of the patient. The best system is to have a Governor chosen, as in Burma, from among the old officials, a man chosen, of course, for his capacity and left to some extent to himself. The special advantage is that he knows that he is there for a fixed time, and for a fairly long time, and that nobody, no Deputy or Member of Parliament, will have the power to turn him out in order to make room for a politician.

The Lieutenant-Governor of Burma does not need to trouble himself about Members of Parliament in London. The Governor-General of Indo-China always has, whether he likes it or not, one ear turned in the direction of the Palais-Bourbon. That is the evil point of the French method.

Moreover, there are the Colonial Deputies. This is also a mistake, in my opinion a very grave mistake. The colonies are countries which

have been conquered. They are the property of the country that administers them, governs them, and develops their riches for its own profit. It is, in fact, this very development, carried out in a reasonable way and with continuity, which is the justification for their existence. And this very development by the country which owns the colony brings comfort and civilization with it. Since the colony is the property of the nation, it has not the right to be put on the same footing as the governing country, and it has no justification or right to send representatives to sit in the Home Parliament. This is true logic, and no English brain will understand the position in any other way. It needs French sentimentalism and false idealism to take any other standpoint.

No one but the Minister and the colonial officials are qualified to administer our possessions, subject to the control of Parliament—that goes without saying—but certainly not subject to the interference of Deputies, and most assuredly without Colonial Deputies to represent them.

VIII. If a colony is to be defended and protected, it is indispensable that it should have an army. Consequently in his great reorganization of the forces of the Empire in the year 1905 Lord Kitchener did not forget Burma.



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To face p 183.

Of white troops—that is to say, British troops sent from the British Islands--there are :—

At Rangoon, a regiment which sends a detachment to Port Blair, in the Andaman Islands ;

At Shwebo, a regiment which detaches two companies to Bhamo, two to Meiktila, and one to Thayetmyo, on account of the Central Military Prison there ;

At Maymyo, a regiment which leaves two companies in Mandalay ;

At Rangoon, a battery of artillery.

The native regiments from India are as follows :—

At Rangoon, two regiments which detail a detachment to Port Blair ;

At Meiktila, one regiment ;

At Bhamo, one regiment ;

At Maymyo, a regiment and a mountain battery ;

At Mandalay, two regiments and a company of Burmese Sappers and Miners.

The native regiment which is stationed at Maymyo is always a Gurkha regiment from Nipal, the best fighting soldiers in India. The British have had to give up the idea of forming regiments of Burmese soldiery. Some experiments were made, but they were not satisfactory, and now none are enlisted except in the Military

Police battalions. The non-Indian companies in the Military Police are not even Burmese. They are Kachins, Shans, and a few Taungthus.

Mandalay, Maymyo, and Rangoon each have a military staff. The entire body of the troops in Burma form a division, commanded by a Lieutenant-General, who lives the greater part of the year in Maymyo.

There are, besides these, battalions of Volunteers, formed by British citizens in Burma, intended to co-operate with the military for the defence of the country in case of need. These are: the Port Defence Artillery in Rangoon, the Rangoon Volunteers, the Maulmein Volunteers, the Upper Burma Volunteers, with headquarters at Mandalay, and the Railway Volunteers.

IX. The Cadastral Survey of Burma is a combination of the plane table survey by theodolite and the Ordnance Survey for minute details of field-to-field survey. The country to be surveyed is first of all divided into large polygons, whose geographical position is absolutely fixed, and whose superficial area is accurately worked out. Each large polygon is subdivided into a number of smaller polygons, of smaller relation to the general geography and exactly calculated as to their area. Then inside these lesser polygons there are others still smaller, which go by the Burmese name of *kwins* and are rarely

bigger than a mile and a quarter to a mile and seven furlongs square. In this way by proceeding from the greater to the less the possibility of error is reduced to a minimum. The area of the great polygons, calculated with mathematical exactitude, has to correspond with that of the sum of the smaller polygons, and until this has been proved by repeated comparison neither the one figure nor the other is accepted. This is carried out over the whole extent of the country, down to the smallest plot of rice or cereal crops. The Burmese field is a square or a rectangle, where rice or other crops are sown, and its boundaries are well marked. The superficial area varies from an acre in the alluvial plains of the Delta to a quarter of an acre in the Prome and Thayetmyo Districts. The area of all the fields in a *kwin* has to correspond with the total area of the polygon in which the *kwin* is situated. It may therefore well be said that the Survey of Burma is as well established as science can make it.

The changes which occur during the year are noted annually by the Department of Land Records and Agriculture, changes of every kind, of cultivation, ownership, or mere changes of shape. This is absolutely necessary for the calculation of the Land Revenue. Every year

there are stretches of waste land brought under cultivation, sometimes with the sanction of Government, sometimes without it, and it is obviously necessary to know both the extent of these and the crops produced, for each cultivator is assessed separately every year, both in regard to the ground which he brings under cultivation and the harvests he gets from it. Statistics are drawn up every year as to the prices, sales, mortgages, and harvests, in order that the revenue officers may have a complete knowledge of all the varying conditions.

All rights of pasturage and fisheries are also dealt with by the Land Records Department, which controls the collection of revenue, in order to prevent fraud. The changes of crops and in the fisheries, and the great number of applications for allotments of land have so enormously increased of late years, that it has been impossible for the executive officers to do more than attend to the collection of revenue, and a supplementary staff has had to be engaged to enable the Survey Department to keep pace with it. In this way a complete survey has been made of the Lower Burma fisheries. Every District has been dealt with as a whole, and then the larger fishery areas have been subdivided. Five *inkunwun*, or fishery officers, have been appointed, four of whom carry out the duty

of inspection, while the one in reserve is ready to take the place of whichever of the four is detailed to take in hand the division and marking out of the fisheries.

With the exception of the Salween and North Arakan Hill Tracts, districts which have not yet been settled, the revenue system of Lower Burma is now complete. The system adopted is that of so much *per cent.* on the acre, based on the character of the soil and of the harvest, the average price of the produce of the ground calculated over a certain number of years, and the cost of cultivation. The amount of the rent paid, the cost of living, and the debts of the cultivator are also taken into consideration. The rates are fixed for a term of twenty years, except in certain areas where the conditions are exceptional, and there the term is shorter. The rate of the revenue demand remains the same during the fixed term, but the assessment varies with the greater or less size of the holding.

Fallow lands pay no more than a tax of two annas, a little more than twopence, the acre. For some time, however, since cultivation has extended so rapidly and over such great extent of territory, this charge of two annas on the fallow lands is no longer imposed on the larger owners, but only on those who, owing to loss of plough cattle, are really unable to cultivate their fallows.

Pasturage lands, which are not cultivated but are kept permanently for grazing purposes, also have to pay revenue at the two anna per acre rate.

Government makes remission of demand when the crops are either totally ruined or are seriously damaged by floods, drought, or other cause not arising from anything the cultivator has done. If there has been a total loss, the entire revenue is remitted. If the loss is only partial, the remission corresponds with the loss. Nevertheless, in all cases where the loss does not exceed a third of the average crop there is no remission.

The land assessment system in Upper Burma is the same as in the Delta; but the system of assessment is not yet finally fixed, and gives rise to a good deal of discussion. It has, however, been settled that only the lands where the crops have matured shall be assessed, and that there shall be no demand from lands where the harvest has been bad, nor from fallow lands. As a result of this the revenue from the Dry Zone is very irregular in its amount. The determination of the revenue in Upper Burma is much more difficult than in the Lower Province for this reason. In Lower Burma it may also be said that there is only one agricultural season and only one crop—namely, rice. There, in consequence, the land settlement operations are

carried on in the dry season. In Upper Burma, on the contrary, there are three agricultural seasons and very many kinds of crops. Moreover, there is only one form of land-rent in Lower Burma, whereas there are several varieties in Upper Burma. As a consequence of this there is no definite season for land settlement, and the Settlement Officers have to carry on their work all through the year. When it is realized that nothing is entered but lands on which crops have been reaped, and that each field, or part of a field, has to be specially entered on a separate register recording whether the harvest has been good or has failed, it will be seen that the settlement operations are more difficult and less technical.

In addition to this there is the old national Burmese *thathameda* tax, which is a sort of income-tax. It is calculated for each individual on the amount of land-tax he has to pay.

In Lower Burma rights over land in the cultivating districts are acquired according to the rules laid down in the Land and Revenue Act (No. XI. of 1876), which has legalized the form of land acquisition which was customary when the territory became a British possession. Under this Act permanent possession can be obtained, either by twelve years' continuous cultivation and regular payment of the revenue

demand or by direct order of the Government. The first of these methods is the more common in the districts which have been for a very long time under steady cultivation, and districts where there is very little waste land. The second method of obtaining land is a concession to new settlers on land which up till then had not been cultivated. Such settlers get exemption from revenue demands for a time, which varies according to the greater or less difficulty and labour implied in bringing the land under cultivation. The owner of land can alienate his property at his own will and convenience, but Government exercises all the authority possible in order to secure its transference to *bona-fide* cultivation. The ordinary condition of a rural Burman is that of peasant proprietor; nevertheless the system of renting to tenants is becoming more and more frequent in Lower Burma. The class of tenant cultivators is generally drawn from among those who formerly were peasant proprietors, but have been ruined in one way or another and have been forced to sell their lands and become tenant-cultivators.

There are, on the other hand, especially in the Irrawaddy Delta, many young people from Upper Burma who have settled there and created a family. It is very difficult to get an exact idea of the number of properties sold, where the

old peasant owners have become merely the tenants. Nevertheless it is certain that there are very many instances in the neighbourhood of the great commercial and industrial centres, and that the practice is becoming more and more common. The area rented out to tenants is, as a matter of fact, one-fifth of the total area cultivated, and the average rent paid for wet rice-land is eight rupees an acre. The rent is usually paid in produce, and it is usual, though it is not an invariable rule, to reduce the rent if the harvest is bad. About one-tenth of the cultivable land is in the possession of owners who are not themselves cultivators, and three-fifths of these, moreover, are absentee proprietors. The increase of this class has been caused by the need of capital to open up the country, and during the last twenty years the extension of cultivation has been very rapid. The purchase price of an acre of rice-land is nowadays from twenty-five to thirty rupees, and the rent is one-third of the purchase value.

Most Burmese of the cultivating class are very prosperous. The soil is very fertile, and the farmers have an abundant surplus after they have paid their rents.

The ownership of the soil in towns and villages is regulated by the Lower Burma Town and Village Land Act, No. IV. of 1898. The

rights of proprietors are the same as in the case of the owners of rural land. But in the towns of Rangoon, Maulmein, Akyab, Bassein, and Prome the purchase of ground is subject to the old national customary law, which has been retained. In the latter three towns every one is considered absolute owner who can prove uninterrupted possession over the period of thirty years prior to the Act of 1898.

In Upper Burma the possession of land is governed by the Upper Burma Land and Revenue Regulation, No. III. of 1889.

In this part of the province there are two tenures: State lands and non-State lands.

The State lands are the property of the Government, or are at the disposal of Government, and they include:—

1. Burmese Crown Lands.

2. Lands known as "service lands," assigned to a variety of persons who rendered service for them.

3. The islands and alluvial formations along rivers—that is to say, the lands subject to change owing to the vagaries of the river.

4. All lands which had not been brought under cultivation and had no owners on the 13th July, 1889, except pagoda lands, monastery lands, and others devoted to the purposes of religion or education, with the exception

of the lands and curtilages of inhabited houses built on these lands.

5. Lands which were not under cultivation and of which no one proved ownership before or up to the 15th July, 1891.

6. Common lands.

In the case of heads Nos. 1, 2, and 3, the British Government has simply taken over the rights of the Burmese Crown. In the case of heads 4 and 5 it has gone beyond this. The Kings of Burma never were in a position to establish their rights over fallow land brought under cultivation. As a matter of fact, any one could cultivate unoccupied lands, and thus acquire rights which in the process of time became hereditary. But on the other hand, sales of land were of rare occurrence, and were contrary to custom, and no right of private ownership could accrue in lands where ancient common rights existed. The British Government has declared itself the owner of all unoccupied and uncultivated lands, and no one can settle on them except in accordance with the rules laid down in the Act of 1889.

The Regulation authorizes leases for thirty years, and also permits temporary occupation. The cultivators have the right to choose either the one or the other. The Regulation also fixes the revenue to be collected from these lands,

and also remissions of revenue to the cultivator when he is forced to leave them fallow. It may, however, be remarked that these rules are by no means popular in Upper Burma, and that waste lands are frequently occupied and cultivated without any title whatsoever.

The non-State lands are the following:—

1. All lands cultivated before the 13th July, 1899, and, on that date, in the occupation of the person who cultivated them.

2. All lands cultivated for several generations and which have passed in regular descent to heirs, or which have passed into the hands of others by formal and acknowledged sale.

3. All lands formerly granted with regular title-deeds by the Kings of Burma, or by the local Governors by formal deeds.

All the lands, whether of the one class or the other, are liable to pay regular revenue to the Government. This rate of assessment is based on the different kinds of soil and of crops, and is fixed either in money or in produce. The scale and the amount of rent are determined by ancient use and wont, except in the irrigated areas in Mandalay and Kyauksè. They may vary from a tenth of the outturn from poor soil to one-half where the soil is fertile. In the case of the former a remission is almost always granted when the harvest is a bad one. With

the exception of former Ministers of State, or members of the Burmese Royal Family, at Mandalay, Kyauksè, and Sagaing, or former officials under the native Government, the landowners of Upper Burma are practically on the level of peasant cultivators. The soil in Upper Burma, moreover, is not by any means fertile, tenant cultivators are few in number, and it is usually the owner of the land who cultivates it.

The town lands of Upper Burma are regulated by this same Regulation of 1889, and the rules for the sale of State lands in towns were published in 1899. With very few exceptions all town lands are State lands.

X. Burma is administered by a Lieutenant-Governor, and is one of the provinces of India. It pays a very large contribution to the Imperial Treasury, and it does not always do so without protest. Owing to its outturn of rice it is very rich, and it is not unseldom called "the milch-cow of India." Its contribution to India last year (1910–11) was 37,583,000 rupees, and there are some newspapers in India that consider that this is not enough, and that more should be taken from Burma to make up for the loss to the Treasury of the opium revenue. Moreover the *Pioneer*, in an article part of which was published in the *Rangoon Gazette*

of the 22nd January, 1912, urges that it was India with her troops that conquered Upper Burma, and therefore it is right that Burma should repay this. The *Rangoon Gazette* replies to this with much cogency and reason that the cost of the expeditionary force and of the pacification must have been paid long ago.

"If twenty years after the final pacification a contribution of Rs.37,583,000 is still demanded from Burma, it is very clear that since this sum has been paid for twenty years the expenses incurred by India must certainly have been covered. Moreover, who is it that has most profited by the annexation of Upper Burma? There can be no doubt that it is India herself. It is a notorious fact that the march on Mandalay was due to Imperial necessity. The history of the years before 1885 is sufficiently well known, and no one now denies that the reasons given at the time to justify the annexation were intended to hide a secret project. The boundary between Upper and Lower Burma was artificial and fantastical; the Representative of another Power was in treaty with King Thibaw for commercial and industrial concessions, with an eye to future more serious eventualities. Our teak trade was hindered; it was necessary to have a more natural and a more well-marked

frontier; the massacres ordered by King Thibaw and the weakness and futility of his policy—all these were causes of the war.

"But as a matter of fact the real cause was the fear which the Government of the day had of seeing another European Power set foot in Upper Burma and so threaten our power in India. It was therefore more particularly to safeguard India that we annexed Burma. Since that is so, why should the whole province pay for an indefinite period an enormous sum of money to the Imperial Treasury, when the north of the province was taken over, not merely to guarantee the position of the southern half, but also, and most of all, for the safety of the Indian Empire?

"By all means let us pay a share, but let it be a reasonable share and a fixed amount, not always increasing year by year. We can make a very good use of our surplus for our own benefit. The railway system needs extension. One has only to look at the traffic which the railways now existing have created to realize that others ought to be built. The figures of the Port of Rangoon will reveal to those who do not know of the marvellous growth of Burma that we need our own money for ourselves. Money spent in Burma will be money well spent, and it will bring in time large sums into Indian coffers. It will be not merely for the sole

benefit of Burma, but for all the other provinces of India." [1]

I have intended in making these quotations to show how highly Burma is esteemed as a rich younger sister. It is clear enough that from now onwards this province is the most flourishing from all points of view of the provinces of the Indian Empire. There is abundance of money there; people live there in a large way though the cost of living is very high. Indian officers who pass from India to service in Burma all receive an allowance on account of the cost of living which corresponds with their rank.

It is therefore very certain that if merely the half of what is now poured into the Indian Treasury were kept in Burma, in a very short time it would become very much more rich and very much more prosperous than it is even now.

[1] Quoted from the *Rangoon Gazette* of the 22nd January and 21st February, 1912.

CHAPTER VII

WHAT TO SEE IN THE PROVINCE

I. Ways of getting to Burma. II. Roads. III. Railways. IV. River navigation. V. Character of the country. VI. European life in Burma. VII. Excursions—Old remains and ruins: Prome, Pagân, Amarapura, the Defiles, the Gôkteik Bridge, the Ruby-mines.

I. THERE are many ways of reaching Rangoon, or rather perhaps one should say there are only two ways, but many steamers. One can go from Europe to Bombay and there take the railway across to Calcutta. From there the British India steamships go direct to Rangoon.

To get to Bombay one has the choice between the different French, English, German, Austrian, and Italian lines, according to the European port from which one starts. By taking this route Rangoon is reached in from twenty to twenty-three days.

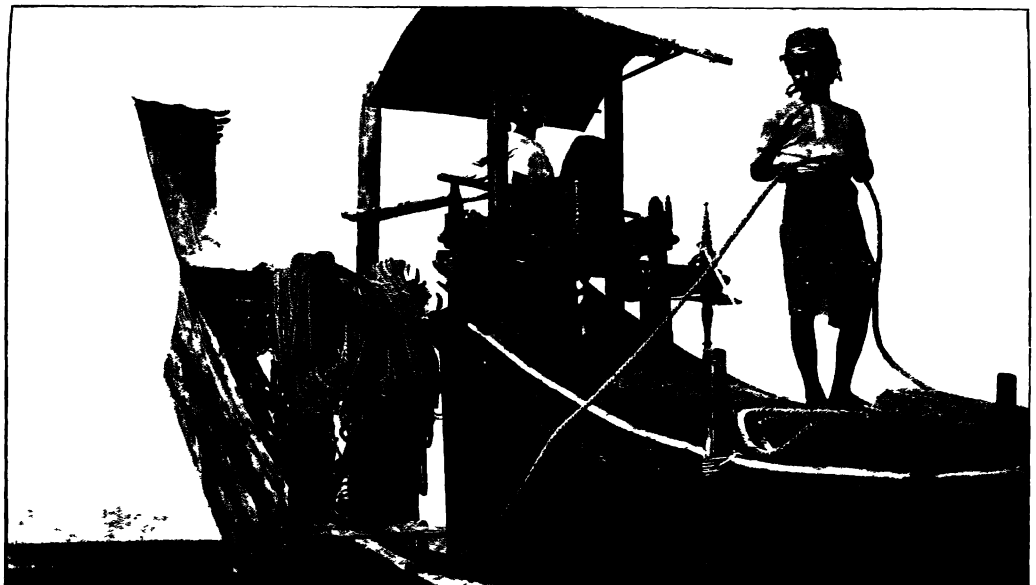
But the easiest, the most agreeable, the most comfortable, and the cheapest is to sail from Liverpool or from Marseilles in one of the Bibby Line boats. This company has now for many

years had a service from Liverpool to Rangoon. The steamers touch at Marseilles, Port Said, and Colombo. The ships are excellently fitted-out, and are so built that they can keep the high seas even in the stormiest weather in quite remarkable fashion. The passage money amounts to £45, and if a return ticket is taken there is a very considerable reduction, according as the period is for three months or for two years.

I cannot praise the Bibby Line too highly. One is as comfortable on board their boats as it is possible to be on any boat making a long sea journey. They make the passage in twenty-three days from Marseilles. From Liverpool it is slightly over the month.

There is another direct line from Liverpool to Rangoon—the service of the Patrick Henderson Company. The fares are somewhat lower, but the comfort is not quite the same, and these vessels are mostly patronized by subordinate officers and people of no great means. They are quite comfortable boats to sail in; great attention is paid to the passengers, but there is not the luxury of the Bibby Line boats.

On landing in Rangoon, the first thing to do is to choose your hotel. There are several of them. First there is the Strand Hotel on the river-front, facing the harbour and the landing-



THE STERN AND STEERSMAN OF A BURMESE BOAT

James Wingate

stage; then there is the Royal Hotel in the chief street, Merchant Street. Prices range from 12 to 15 rupees a day. The cost of living is very high in Rangoon, and rents in particular are extraordinarily high. Besides these two hotels there are also boarding-houses, with which bargains can be made. These *pensions* are usually managed by the widows of officers who have died leaving little provision for them, or they are kept by traders who have not done very well, for even in the extreme East it is not everybody who becomes a millionaire. They are usually quite pleasant places to live in, and I would advise any one who proposes to make a fairly long stay to go and live in one of these. These boarding-houses, or private hotels, are mostly situated in the part of Rangoon which is called the Cantonments, outside the business part of the town. They are therefore provided with gardens, and one has plenty of greenery and fresh air.

There are several ways of going about the town, and one has to choose between them. There are the tram-cars, but no one but Orientals goes in them. There are *gharis* or hackney-cabs, and this is the most usual way of travelling. Victorias or landaus can be hired, but they are very expensive. There are also some Japanese jinrickshas, but there are not very many of these.

II. Of roads outside the town there are still very few, especially metalled and macadamised roads, kept in order with steam-rollers. Nevertheless, there are a few of them, mostly in Lower Burma.

1. There is one which leaves Rangoon in the direction of Tharawaddy, passing through Insein, Taikgyi, and Thonzè. From Tharawaddy it goes on to Letpadan and Minhla. There it stops for the present, but some time or other it will, no doubt, be carried on to Prome.

2. From Pegu there is a road which runs north to Nyaung-lè-bin, passing through Daiku. It seems likely that it will be carried on when funds are available as far as Toungoo. From Pegu there are also some shreds and patches of roads to the south, the east, and the west. They show ambitions to go on somewhere, and no doubt will do so in the fulness of time.

3. From Thatôn to Martaban by way of Paung.

4. From Maulmein to Amherst by way of Mudôn.

5. From Toungoo to the Thandaung Sanatorium.

6. From Thazi to Taunggyi, the headquarters of the Southern Shan States.

As for simple country roads, not metalled, there are plenty of them, and they are practicable

enough in the dry weather, but in the rains they usually become bogs. Such are :—

1. From Sandoway to Gwa, on the Arakan coast of the Bay of Bengal.

2. From Pantanaw to Myan-aung, following the right bank of the Irrawaddy and passing through Henzada. From Henzada a road branches off to Ngan-naingaung.

3. From Ma-ubin to Kyaiklat.

4. From Gyobingauk to Paungdè, Shwedaung, Prome, Padaing, and Taungup.

5. From Prome to Thayetmyo and Minhla, and from Minhla on to Mindon.

6. From Daiku to Toungoo.

7. From Amherst to Ye.

8. From Kyaikto to Papun.

9. From Yedashe, on the main railway line, to Thayetmyo and Allanmyo.

10. From Pakôkku to Pauk, and then from there northwards to Kan and beyond.

11. From Meiktila to Myingyan. From this latter town there are several sketchy roads in various directions.

12. Round Mandalay there are several routes in various directions. There is one from Mandalay to Chaung-li; from Sagaing to Shwebo; from Mandalay to Maymyo, Hsipaw and Lashio, now superseded by the railway, so that the greater number of sections are rapidly becoming

grass-grown village roads. Mandalay, Sagaing, Alôn, Môn-ywa, Shwebo, Tabayin, Ye-u, Tamadaw, Kin-u, and Thabeit-kyin are all connected with one another by a network of routes.

13. From Tigyaing to Wuntho, Banmauk, and Katha.

14. From Bhamo to Myit-kyina. There is a veritable web of roads between these two towns.

15. From Mogaung to Kāmaing and beyond.

16. Finally, there is a great road across the Shan States from Taung-gyi to Kēngtūng.

All these roads are naturally very elementary, and have to be freshly made after every rainy season. Nevertheless, they make trade possible in default of other means of communication, and they are of great use for the carts and other wheeled traffic of the people of the country. The European does not make much use of them, for where there is no railway or steamboat he usually travels on horseback.

III. It was not for fifteen years after the annexation of Lower Burma, in 1852, that the English thought of building a railway. The first line, which was aligned in 1869, was the one from Rangoon to Prome. It was sanctioned under the name of the Rangoon and Irrawaddy Valley State Railway. Construction was not begun till 1874, and the line was opened to traffic in 1877. The distance from Rangoon to Prome is exactly 161 English miles.

In 1884-5 a new line was built, the one which goes through Pegu and Pyuntazā up to Toungoo, a town of fair size, which at that time was on the frontier between British and Independent Burma. This line follows the course of the Sittang River, to the north-east of Rangoon, and reaches Toungoo at the hundred and sixty-sixth mile. An English mile is exactly 1,609 mètres, and five miles correspond with eight kilomètres. The local traffic increased so greatly that the line of rails from Rangoon to Insein, on the Prome line, had to be doubled. Insein is nine miles from Rangoon, and the doubling of the line was completed in 1883. At different times since 1882 a great number of rice-mills have had branch-lines constructed to bring in their bags of rice, for the export of rice increased enormously in correspondence with the facilities which the railways furnished for its delivery. Up till then rice had come down in boats, and consequently the crops of those parts of the country where there were no water-channels remained where they were and could not be disposed of. The first rice-mill branch was built in 1883, and between then and 1912 more than twenty miles of rail have been laid down for the exclusive use of the rice-mills.

This was the state of affairs when, in 1885, what remained of the Kingdom of Burma was

annexed. Since the first lines had been successful beyond the most sanguine expectation, the British Government thought, not unreasonably, that the wisest thing to do was to extend the railway to Mandalay. This was all the more desirable because it would greatly help the dispatch of troops to put down the dacoits and bands of Burman rebels who were still out in the field. So it was begun, and by July, 1888, the line reached Thawati, and by October of the same year was at Pyinmana, half-way from Rangoon to Mandalay. On the 1st of March, 1889, the line was formally opened to Mandalay, the brand-new Burmese capital, which dated from 1857 and had already become a mere District headquarters.

In 1890 the construction of the Mu Valley railway was begun, running north towards Myit-kyina. The line starts from Sagaing, on the right bank of the Irrawaddy, twelve miles to the south of Mandalay, and the distance from there to Myit-kyina is 335 miles; Myit-kyina is the most northerly of the Burma Districts at the end of the spurs running down from Tibet. The section from Sagaing to Shwebo was opened to traffic on the 1st of July, 1891, and it was pushed on to Wuntho in 1893. By October of the same year the line was completed as far as Mo-hnyin, as well as the branch-line from Naba to Katha,



A SHAN SAWBWA AND FOLLOWING

which stands on the banks of the Irrawaddy and has a regular ferry-boat service to Bhamo. The section to Mogaung was opened in 1897, and two years later the last thirty-six miles from Mogaung to Myit-kyina were opened to traffic, in February, 1899.

It was necessary to connect Mandalay with Sagaing, and so an extension six miles long was constructed from Myohaung, three miles south of Mandalay, to the banks of the Irrawaddy opposite Sagaing, to which place the crossing was made by ferry across the river. This branch was opened in 1892, and since then the question of building a bridge has been discussed; but up to now it has steadily been put off, on account of the treacherous character of the river bottom at this place and the want of a grant of funds from the Indian Railway Board.

In 1893 another branch-line, fourteen miles long, was opened from Thazi, on the main line, to Meiktila, and this has been carried on to Myingyan, on the Irrawaddy.

It was about this time that the Government of Burma considered the question of building a railway across the Shan States to Ssumao to open up Western China. The line was begun in December, 1895, and the first section, as far as Maymyo, on the Shan plateau, was opened to traffic on the 1st of April, 1900. It was

carried on to Hsipaw and Lashio, but the difficulties of construction were so great and the cost so enormous, while the prospects of trade were so small and the poverty of the country along the line so marked, that construction was stopped. The line as it exists is 177 miles long from Mandalay to Lashio; an iron bridge over the Hoküt (or Gôkteik) Gorge, on the nearer side of Hsipaw, cost several millions. It was thought that Hsipaw could be reached by no other route through so difficult a country. Trains run only every other day between Hsipaw and Lashio! Between Mandalay and Maymyo the line climbs the hill by a series of reversing stations, which involved a very great deal of work. The line is inspected very carefully every day, for if a mishap were to occur the train would topple into the ravine.

On the 15th of April, 1900, a line from Sagaing to Mônywa and Alôn, on the River Chindwin, was opened to traffic.

Three years later, in April, 1903, a branch-line from Letpadan, on the Prome line, was constructed to Tharawaw, where the river is crossed by ferry to Henzada, and from Henzada the line is carried on to Bassein. At this time, in 1903, the total length of the lines open to traffic was 1,337 miles.

Four miles were added to this in 1905 by the

opening of suburban lines at Bassein. In this same year were commenced the first operations on the Pegu-Martaban line, to the other side of the river from Maulmein. The length of the line is 121 miles. As works of engineering skill, the bridges over the Pegu and Sittang Rivers are worth noting. Another line was begun between Henzada and Kyangyin, a distance of sixty-five miles. Finally, this same year, 1905, saw the beginning of the examination of the ground for the construction of (1) a line from Prome by the Taungup Pass to connect Arakan with Rangoon, a distance of 113 miles; (2) a line from Pegu to Syriam, with a length of sixty-seven miles; (3) of a circular line, to the east of the River Daga, between Neikban and Begayet, covering sixty miles; and (4) a line from Pyin-mana to Magwe, distance 100 miles.

During the two following years no new line was opened to traffic, but considerable progress was made on the two lines under construction—the Pegu-Martaban-Maulmein line and the Bassein-Henzada-Kyangyin line. These two lines at the time of writing are working.

A railway survey party was sent out to ascertain the possibilities of a 2-ft. 6-in. line from Bhamo to T'êngyüeh, in the Chinese Province of Yün-nan. Nothing has, however, yet been decided on this subject.

The year 1910 saw nothing in the way of railroad construction except the beginning of the line which is to open up the Southern Shan States, starting from Thazi on the main line and running eastwards. Many proposals were submitted to Government, but none of them was sanctioned.

The Pyinmana-Magwe line and the Daga-Henzada-Bassein-Neikban-Begayet are still held up, because of the heavy character of the work.

A private branch line was opened on the Mandalay-Lashio railway to connect the Burma mines with the railway.

Suggested lines were from Zadabin to Chittagong to connect Arakan with Bengal, so that, if the Taungup line were constructed, one might travel from Rangoon to Calcutta by rail; from Maulmein to Ye; and from Malagon to Dawbong.

Thus, although a great deal remains to be done, the Burma railway system has greatly quickened communication and has linked together all the great centres. Rice is piled up higher and higher at Rangoon, and only remains long enough there to pass from the truck to the steamer's hold; for a harbour line runs all along the river front, and makes loading an easy matter. Rice is the wealth of Burma, and there is never any dearth of it. It would also be the

wealth of Cochin-China if we had seen to it, like the English, that railways opened out the fertile provinces round Saigon. The amount of capital sunk in Burma since 1869 for the construction of railways amounts to twelve millions sterling. This is not a very excessive figure. How is it that we have not done the same thing in Cochin-China? It may be said that we had no need of them, when we consider the few paltry establishments which our fellow-countrymen set up in Indo-China. If these are compared with the wealthy enterprises of the British in Burma, one begins to understand why they have an urgent need of railways.

The railways in Burma are in the hands of the Burma Railways Company, which conducts them under its own management, with a guarantee from the Provincial Government.

The gauge is the metre gauge. The carriages are very comfortable, with seats which can be changed into sleeping berths, a lavatory, small tables for writing, or card-playing, or taking tea. In the first and second classes the railway ticket implies a right to a sleeping berth at night, when the journey is a long one—as, for example, from Rangoon to Mandalay.

The charges are moderate. The fare from Rangoon to Maymyo is 40 rupees, and a return ticket, valid for a month, costs only 60 rupees.

In 1911 the expenditure of the Burma Railways Company, Limited, amounted to Rs. 5,191,015, of which 1,400,000 were for the rolling stock. The chief items of expenditure otherwise were: the doubling of lines, the rebuilding of old stations, houses for the staff, and the building of new bazaar-stall carriages. These market carriages are simply shops set upon wheels and attached to the ordinary trains, not the express trains. The stall-keeper settles himself down in one of them, and makes his sales at every station the train stops at. This is a very considerable advantage for the pedlar, and a great convenience for the Burman peasant, who is relieved of all trouble, and does not need to go to the towns for what he may stand in need of. The Irrawaddy Flotilla Company long ago set up shop-steamers which shop at all the small villages on the banks of the river. The stall-keepers travel in this way from Rangoon to Bhamo in consideration of a fixed rent paid to the company. Besides this a good deal was expended on the complete rebuilding of the Rangoon railway-station, which has made great progress. The double line of railway between Pegu and Pyuntaza was opened to traffic at the end of June.

The embanking on the first section of the Southern Shan States line is finished and the

bridges nearly completed. The rails have been laid for a distance of fourteen miles from Thazi junction, and quite recently the first section up to the seventeenth mile has been opened to traffic; 10 locomotives, 15 third-class carriages, 16 goods-vans, 150 cattle-trucks, and 100 ballast-trucks were also added.

The gross revenue exceeded that of the previous year by more than 500,000 rupees, and maintenance charges reach about the same figure. The net revenue in 1911 was Rs. 3,523 more than in 1910.

Nineteen million third class passengers were carried, more than one million increase on 1910. The goods traffic prospered equally. The table of receipts and expenditure for 1910-11, from July to July, is as follows:—

Receipts.	Rupees.
Passenger traffic	7,827,843
Goods	10,459,077
Other receipts	493,133
Gross receipts: total	18,780,053
Cost of working...	12,031,889
Net receipts	6,748,164

The accounts of the company showed a profit of £63,553 19s. 2d., added to the balance on the 30th June in London of £55,806 12s. 8d., which made for the year an available total of

£119,360 11s. 10d. The dividend of three-quarters per cent. was paid on the 1st July and amounted to £21,187 10s., which left a credit balance of £98,173 1s. 10d.

When are our Indo-Chinese and Yün-nan Railways going to reach a position like this?

IV. Besides land routes and railways, there are, in a country so well watered as Burma, a number of waterways on which low-draught steamers ply after the fashion of the American river-steamers. The river navigation is entirely in the hands of the Irrawaddy Flotilla Company. There are services from Rangoon to Mandalay with stoppages at Henzada, Prome, Thayetmyo, Yenangyaung, Pagān, Pakôkku, Myingyan, and Myin-mu. These steamers leave Rangoon on Mondays and Thursdays for Mandalay, and the return journey from there is on Wednesdays and Saturdays at daybreak.

From Mandalay to Bhamo, with stoppages at Kyauk-myaung, Thabeitkyin, Male, Kyaukhnyat, Tagaung, Tigyaing, Katha, Moda, Shwegu, and Sinkan. The vessels on this line leave Mandalay on Tuesdays at eight in the morning, and reach Bhamo on the Friday. They leave Bhamo at seven o'clock on Saturday mornings, and reach Mandalay on the Monday.

From Prome to Thayetmyo and back steamers go every day except Monday. They leave Prome

at seven in the morning after the train from Rangoon has come in, and they get back to Prome again at night, so that it is possible to catch the train which leaves for Rangoon at half-past nine in the morning.

There is a daily service between Katha and Bhamo. The journey takes fourteen hours. It is usually necessary to pass the night on board, so the first and second class passengers have cabins given them, and one can dine and breakfast on board.

Other steamers leave Rangoon for the following places :—

Bassein—Tuesdays, Thursdays, and Saturdays ;

Henzada—Tuesdays and Fridays ;

Kyauktan and Thôngwa, every day ;

Dedayè, Kyaiklat, Pyapôn, Bogale, Maulmeingyun, Kyaikpyi, and Pyindayè, in the Delta, twice a week.

From Mandalay a steamer runs daily, except Saturday, for Myingyan, and another leaves Myingyan for Mandalay, both of them stopping at the chief villages on the way. Another steamer leaves Mandalay for Thabeitkyin on Mondays and Thursdays, and returning on Tuesdays and Fridays.

There is a launch service from Myingyan to Pakôkku backwards and forwards on the same day, leaving Myingyan in the morning and

returning in the evening. The steamers which ply on the Chindwin River leave Pakôkku on Thursday mornings, stop at Mônywa the following morning, and go on to Kindat, stopping at Alôn, Mawkadaw, Kale, Kani, Mingin, and Masain. On the return journey they leave Kindat on Wednesday in each week.

The British India Company's steamers leave Rangoon for Calcutta direct every Monday, carrying the European mails. The steamers leaving on Thursday and Saturday stop at the coast ports, Sandoway, Kyaukpyu, Akyab, and Chittagong.

A steamer from Rangoon for Madras direct leaves on Saturdays, and from Rangoon to Pinang and Singapore on Fridays.

Steamers for Maulmein leave Rangoon three times a week, on Mondays, Wednesdays, and Fridays, at seven in the morning, arriving at Maulmein at four in the afternoon.

The Irrawaddy Flotilla steamers, and those of the British-India, are very comfortable, very clean, and very well kept up. I have made several voyages on the river from Mandalay, northwards, and I have nothing but praise for the accommodation, for the food, and for the courtesy and capability of the officers.

V. Now that the means of getting about Burma have been described, it may be useful

to indicate some excursions about the country. It must be understood that Burma has none of the marvels of India. India is without an equal in the world. There is no place like India for a succession of magnificent monuments in the midst of delightful scenery. Nevertheless Burma has many attractive journeys and many fine relics of the past.

The country itself is divided into two sharply differing parts—the Delta, and the plain from Rangoon to Mandalay. The plain is shut in on the west by the mountains of Arakan and on the east by the Karen and Shan hills. Here there is no edge to the horizon, stretching away over a huge plain, damp and green with rice-fields in the summer months; dry and showing nothing but rice-stubble after the harvest in the dry season. Here and there are a few wooded clumps and coppices; villages surrounded by bamboos and mango-trees; herds of buffaloes and cattle grazing as they wander, and, now and then, huge flights of egrets and herons, ducks and geese. A striking air of melancholy seems to brood over this plain, which forms the wealth of Burma, when one is carried through it behind a locomotive in the midst of the torrent rains of the summer. Everything seems to be drowned and under water. On the other hand, when the dry season has come and the water has run off,

the sun gives this grey plain a kind of loveliness, modulated by the distance of the horizon. It is clear that it is not here, it is not in the Delta of Rangoon and Bassein that one has to look for the smiling views of Burma. One has to travel farther north. Mandalay already has quite a different kind of scenery. It is not that the plain in which it lies has a more exhilarating look, but the first spurs of the Shan tableland, which shelter it to the north-east and east, and the hills of Sagaing to the south-west, give it a more picturesque appearance, and one which suggests a much more agreeable country.

The division of the seasons or monsoons, as a matter of fact, are not all the same in Lower and Upper Burma. In Lower Burma the alternating south-west and north-east monsoons are sharply marked, and cause two well-defined seasons: the rains and the dry weather. From the end of April or the beginning of May till the month of July the south-west winds bring up the clouds laden with moisture over the forests of Pegu, and there they dissolve in abundant rain. They fall every day throughout this time, and at the beginning and the end are usually, in addition, characterized by violent squalls. The air is filled with electricity, lightning flashes and thunder growls almost without interruption. Pagodas, high buildings, and lofty

trees are struck, and men and cattle are killed. From the month of July onwards to the end of September the rains are less torrential, and there is neither lightning nor thunder. Then the south-west monsoon dies away and makes way for that from the north-east, which when it is established lasts up to April. The skies clear; drought becomes general and without a break. In some years there are showers about February, but they are not heavy, and do not last more than a day or two.

In Upper Burma, on the contrary, the year may be said to be divided into three seasons, the cold, the hot, and the rains. The four months from November to February form the cold weather. The cold is only comparative of course, for it never freezes. March, April, May, and June make up the hot weather, and the four remaining months are those of the rains. The cold is only really felt at night and in the morning. In a few exceptional places there may be a white frost, but snow is quite unknown. The cold season is the pleasantest, for it is fresh rather than cold, and the frame is braced rather than tried.

On the Shan plateau the seasons are the same as in Upper Burma. There are usually duck-frosts in January and February, and fires are quite necessary.

Summer is not preceded by a smiling spring as it is in Europe. The change from cold to hot is very sudden, so much so that it is precisely in the months of March and April that the maximum heat temperatures are recorded. I have seen the thermometer rise to 42°C. (106°F.) in the shade. It is about this time that the trees begin to renew their leaves. They are mostly, as in all countries in the Torrid Zone, evergreens. On the Shan Tableland, however, some trees, more especially the oaks, are deciduous like the trees of Europe. Upper Burma, although it is in a considerably higher latitude, has much greater heats and much longer, on account of the mountains which shut it in. During the hot and dry season there are often fogs which hang over the Irrawaddy and its tributaries, and do not rise till midday.

It is thus very clear that there is a great difference between the north and south of the province. There is a very well-marked division: the Delta and the low plain of Rangoon up to Toungoo; the upper country from Toungoo to Mandalay and beyond, and the Shan Tableland. Europeans who have become accustomed to the climate of the Delta dislike Upper Burma. On the other hand, later comers, since the Annexation of 1885, who have never lived except in Upper Burma, do not willingly suit themselves

to the climate and the level monotony of the Irrawaddy Delta.

VI. What becomes of the European in these tropical countries, where he is always more or less exposed to the rays of a scorching sun? He lives there none the less and accommodates himself to it very well. I knew a Frenchman who came to Burma in 1855. His place of residence is Prome, and there he lives, active, energetic, and in good health. I have met a missionary in Lower Burma, at Henzada, who had carried on his apostolic work for fifty years without ever returning to France, and had never had a day's sickness. There are English and German merchants who have been in Burma for twenty, thirty, forty years, and have bid defiance to the climate.

The reason of this is that although the climate of Burma is hot, it is not unhealthy. It is not to be compared with the atrocious climates of Siam or Cochin-China. These lands are shut off from the breezes of the high seas by the peninsula of Malacca; they are not braced up by the breath of the sea. Rangoon and the whole of the Delta of Lower Burma are exposed to the full blast of the south-west monsoon. Thus even when there is a temperature of a hundred in the shade, there is always a noticeable breeze in Rangoon which freshens up

towards evening and gives one good sleep and rest. This is the great point. If one can sleep at night, the heat of the day does not matter.

At the same time, it must not be forgotten that if the English in Burma stand the climate better than the French do in Cochin-China, this is not entirely due to the difference in the climate, but also and more particularly to the difference in the way of living. This is a question which I have put to many people, and I think I have the answer to it. It is beyond dispute that the French in Indo-China have far more wastage than the English in Burma. At Saigon, among the Europeans, whether soldiers or civilians, there are always great numbers of sick men with dysentery, liver complaints, and most of all anæmia. In Rangoon, Europeans, civil and military, are equally more liable to sickness than they are in Europe, but in comparison there are fewer sick, and the Englishman living in Rangoon has not the wan look of papier mâché that the French resident of Saigon has.

What is the cause of it? Most people say alcohol straight away, but I think this idea must be summarily rejected, for the Englishman, in his clubs and bars, drinks just as much as, if not more than, the Frenchman in his cafés.

There are many other reasons that have been

given, but of them all I have only found one that is reasonable, and, I think, conclusive. The Englishman takes plenty of exercise; the Frenchman takes none at all. The Englishman eats well, drinks well, but he gets over all that by regular exercise. The organs are kept in perfect order and they never become choked in their working. The Frenchman, in tropical countries, is disgracefully lazy, and is afraid even of moving about. He eats and drinks the same, nevertheless, and so the organs become over-strained and refuse to work any longer and before very long he falls ill.

It must be said that in French Indo-China the hours of work are very ill-chosen. Offices and shops open at seven in the morning. There is therefore no time to take exercise before going to work. At eleven o'clock everything is shut up because it is too hot. People go to breakfast and then they have a siesta, which is of no use at all, or they absorb drinks, which is no better an occupation.

At two o'clock work is begun again and goes on till five or six. Then every one changes clothes, has a little bit of a stroll, and sits down in the cafés.

The English have more sense than to carry on like this. Offices open at ten. Consequently every one when he gets up takes whatever exer-

cise suits him best—riding on horseback or on bicycle, walking, or rowing. At nine o'clock they bathe and have breakfast. Then they work, in spite of the heat, from ten till one. There are punkahs, and since every one has had his exercise in the morning, he is supple instead of heavy. Moreover, if one does one's work, there is no time to notice the heat.

At one o'clock a light lunch is taken, and work goes on again till five o'clock. Then everybody takes up some kind of sport or other; young and old, women and girls. Some play golf, some tennis, some football, some hockey, some badminton. Until seven at night every one has what is called a constitutional, and then they go to the club. From there all go home to have a bath, change of clothes, and dinner. They sleep well afterwards, because they are well balanced physically and morally.

I am convinced that the entire secret of the English for keeping well in tropical countries is summed up in the word "exercise." We Frenchmen still follow the colonial way of the seventeenth century: a hammock, a siesta, and lounging about while the slaves work. The Englishman works himself; he has no siesta, he stirs about, and his system is all the better for it. The Englishman resists the climate and the Frenchman falls a victim to it.

The first residents in Burma, when they established themselves in Rangoon, Bassein, Prome, and other places, built themselves houses of wood, open to all the winds, with Venetian blinds instead of windows. They had spacious rooms, long and broad verandas, roofs of thatch or of slips of tough wood; their houses were healthy because they were airy, and they were very easily kept up. There are still some of them left, and I have experienced their charm and their comfort. Nowadays they are beginning to disappear, and in their place we see houses of brick and stone. They are more architectural, more European, but nevertheless they are perhaps less comfortable in the Burma climate, and in my opinion they are hotter. Under the influence of this fashion, in no great number of years, when the old-style house has quite disappeared, Rangoon will take on quite the look of a European town. There will be the same furniture, the same wealth of stuff—curtains, carpets, knicknacks—and one is tempted to ask oneself if all this is not out of place in so sultry an atmosphere. In his excellent book on the Netherlands Indies, M. Cabaton has noted the same changes and has expressed the same regrets in regard to the Javanese colonists and officials.

It is the same with clothing, and in regard to

this I differ absolutely from the English view. Formerly it was the custom in the tropics to dress in white. A small network singlet, a jacket with a military collar, like a tunic, and a pair of trousers—that was the wear. This was healthy, simple, and all that was needed, for one could change the whole suit often, and it was quite possible to have two or three dozen of these outfits without straining one's resources. This style of dress is still usual in the French colonies, but the later comers are bringing with them the English fashion. The English custom in India and in Burma is to have everything the same as in Europe, and the white suit has been rejected because the halfcaste, the *chi-chi*, so looked down upon by the English, dresses in white. If the Eurasian dresses in white the European must not dress like him. Consequently even in the stifling temperature of April and May, the Englishman puts on a starched shirt with collars and cuffs, just as if he were in Regent Street, and over this he wears flannel, or cloth, grey, blue, or white, like the most elegant lounge suits of the London tailors. And in the evening, when he has finished his exercise games and had a whisky-and-soda and a cigar with his friends at his club, he goes home to dress in a tailed coat and white tie for dinner. There are still some of the older residents who

dine in white shell-jackets, but they are looked at askance.

I remember an able doctor, who was a very old resident of Rangoon, making a vigorous appeal in the *Rangoon Gazette* to his fellow-countrymen to dress in white. He made it scientifically clear that they were uselessly wearing themselves out and preventing the free circulation of air by wearing clothes which were too heavy and too hot. He pointed out, with the aid of mathematics, that in tropical climates the lightest possible clothes should be worn, but he was preaching in the desert. The poor Sikh policemen of Rangoon, for whom he called for a white uniform, went on wearing their black woollen tunics under the rays of a relentless sun.

One can picture to oneself what the operation of the skin can do for a man wearing such clothes in such a temperature. It is hardly necessary to urge that white would be neater and healthier, but there you are: you must either be fashionable or the reverse. If there are castes in India, there are castes also among the Englishmen in India, and consequently also in Burma. There is no society, not even in feudal Germany, which is stricter on the principle of these divisions. The result is almost comical. Above, quite away at the top, you

have the particular caste, the Heaven-born, as they are called by those who are not so born. This is entirely made up of the all-powerful personages who belong to the Indian Civil Service, which also supplies the administrators of Burma. This is the acme of sacro-sanctity, and these gentlemen, and their wives, have relations with nobody but one another, and do not deign to go outside their caste to widen their acquaintance. Even the highest military officers are barely admitted to an occasional tea or a dinner with them now and again.

The military also live apart, and do not always get on very well with the civilians. They have their clubs and their messes, and they keep very much to themselves. The subordinate executive service forms another society of its own. The merchants form another. In fact, beyond some general gatherings which cannot be avoided—national celebrations or Government House balls, where everybody is invited—every one lives in his own circle. Although, as I have already said, this is somewhat ludicrous at first sight, I am not sure that it is not good for the services and for social relations. Every one is in his own place, which is particularly desirable in Oriental countries. The English in Burma welcome foreigners and receive them in the most friendly way. I pride myself greatly on the



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relations I had with them during the three years I was in Rangoon. My stay in Rangoon remains one of the most pleasant I have experienced in the extreme East, and I have had an extended experience. The British stiffness of those who have never left their own island is softened here by an Oriental atmosphere, which has had the best effect on their character and has rubbed off the angles. The Anglo-Indian is quite an agreeable and charming person, but, but—why do they insist on one's paying one's visits between twelve and two, in such a climate and with such a temperature?

VII. It is some years now since globe-trotters first began to come to Burma, and in the winter months, November, December, and January, there are many bands of Cook's tourists, and even travellers who come without that aid.

I will say no more about Rangoon and its neighbourhood. That has been dealt with in Chapter V., but I will take the reader into the interior of the country.

We may begin with Prome. Ancient Prome is still in existence alongside the modern town, and there are still some curious old monuments to be seen. Old Prome was a purely Hindu colony, which probably belonged to the first century of our era, and was established in the land of the Pyu, the Burmese of those days,

who, some think, themselves came from Tibet. The town covered a circular area with a diameter of about two and a half miles, and contained several quarters of different nationalities, each of which had one or two Buddhist buildings which served as shrines for communities of Buddhist monks. It was surrounded by a fortified brick wall, the ends of which were marked by four pagodas, built of brick and about ninety feet high.

Some time in the ninth century the Burmese were attacked by the Talaings or Môn and retired from Prome to the Upper Irrawaddy.

The traveller can devote a day to the ruins of Prome, which may be reached either by rail or by one of the Irrawaddy Flotilla steamers.

The Government of Burma has done some excavation work, and General de Beylié, under the authority of the Viceroy of India, has also made some extended researches. He found nothing but some stelæ, or pillars, and votive plaques, and two inscriptions in an unknown language, which have so far remained undeciphered. Everything that has been discovered so far proves conclusively that it was the site of a settlement from India—or at any rate that there were many Indians there.

After Prome the ancient city of Pagān deserves

a visit. In the eleventh century Pagān was the Burmese capital, after the retirement from Prome. Pagān again was abandoned in its turn in the thirteenth century, about the year 1284, and nothing remains of it but ruins. The Chinese, or Mongol, invasion following the appearance of Kublai Khan has left nothing but the memory of its glories. Tradition says that Kublai Khan, who was then Emperor of China, sent a great army against the Burmese to avenge the murder of one of his ambassadors. The King of Burma tore down a thousand great temples to fortify the city against the Chinese troops, and besides these a thousand small temples and four thousand pagodas to furnish him with material for defence. But beneath one of the pagodas there was found a prophecy which caused him to give up hope, and he fled and gave up the city. Although it is quite in ruins, Pagān has, even now, nearly eight hundred temples and pagodas, with domes and bell-turrets and pyramids of the most fantastic architecture. Several of the temples rise to a height of over one hundred and eight feet. Pagān is, in fact, the most remarkable religious city in the world from the point of view of the multitude of its temples and the wealth of design and ornamentation which make the old abandoned capital a marvel. Nowadays a few huts on the

river bank mark the site of the town, but for over six miles along the bank of the river pagodas of all sizes and of every kind of architecture are still to be seen, and the ground is so covered with crumpled remains that one cannot take a step without treading on some sacred thing. A few of the buildings have been restored by pious hands and rise up white against the sky, in the midst of others like them which have not had the good fortune to find any one to take care of them, and look all the more pitiful from the contrast.

Three of the great temples in particular have been renovated, as well as some others of less importance, and they are the goal of many pilgrims; but the vast majority have been given over to the bats and the owls, and there are others which serve as byres for cows.

The three principal temples are the Ananda, the Thapyinyu, and the Gaudapalin, all of them close together at the south side of the town. The Ananda is a perfect square, with other smaller squares projecting on each face. It has seven stages diminishing in size the higher they are, so that they form a pyramid. Inside on each of the four faces there is a chapel with a statue of the Buddha thirty feet high. It is thought that this temple was built in the eleventh century.

Next comes the Thapyinyu, the omniscient, which was built about the year 1100 of our era, and then the Gaudapalin, which was built in the year 1200. These two temples resemble each other in their style of architecture, but the first is the larger of the two. Neither has more than one shrine and one statue of the Buddha.

Just below Pagān the river widens out, so as to be like a great lake, and the view of that sacred city is really fairylike. There are the three great temples which rear their multiple roofs against the blue sky, and then the multitude of white and grey pagodas which suggest cathedrals scattered in the desert.

None of these temples possesses any relics. They are simply shrines for images, with sculptured ornament, plated with gold and silver, encrusted with precious stones, very many of which have been carried off. The architectural style of all these monuments is Hindu, but it is Hindu which has been greatly modified by a purely local style of art, and the Burmese are so proud of these Pagān temples that they say there is nothing in India to compare with the classic beauty of some of the smaller temples or with the majesty of the great Ananda temple. The way to Pagān is by steamer from Rangoon, or Prome, or by the railway to

Mandalay, and then down river to Pagān [Nyaung-u], which is not far from the site.

After Pagān the traveller should make for Ava, the old capital, founded in 1364 by Thadominbya. It stands at the junction of the Myitngè with the Irrawaddy, and the city was built on an artificial island, formed by a canal called the Myitthachaung, which joins the Myitngè with the Irrawaddy. Houses are scattered here and there now, and from a dozen or so of little hamlets, both inside and outside the old city walls. The city is in the north-eastern angle of the island. The wall is surrounded by a moat, which is open on the eastern side and closed to the north in the direction of the Irrawaddy. The palace wall, in its turn, is surrounded by another moat. Of the old palace nothing remains but a tower very much inclined to one side and almost ruinous. The walls, however, are very solid and very formidable. Inside the walls are to be found cultivated fields, houses, monasteries, and heaps of brick which at one time were pagodas. The whole collection is well worth seeing, and the view of the ancient capital is one of the quaintest to be seen on the Irrawaddy. Ava was given up for Amarapura, but again became the capital from 1822 to 1837.

Amarapura, the City of the Immortals, was

founded in 1783, and for a long time remained the capital of the Burmese kingdom. At the present day, though it is little over a century old, it is absolutely a ruin. Amarapura was in the form of a square. The King's palace, which had nothing striking about it, was built of solid masonry, and stood in the north-east corner of the city. Alongside one can still see the Royal Audience Hall, which relatively is in a fair state of preservation. Beyond the remains of the royal buildings nothing is to be seen but piles of bricks, in the midst of which millet and sesame fields are scattered.

A wall six feet thick and a wide moat, which can still be traced, surrounded the royal town. It was here that the first English Embassy came, mentioned in the first chapter of this book.

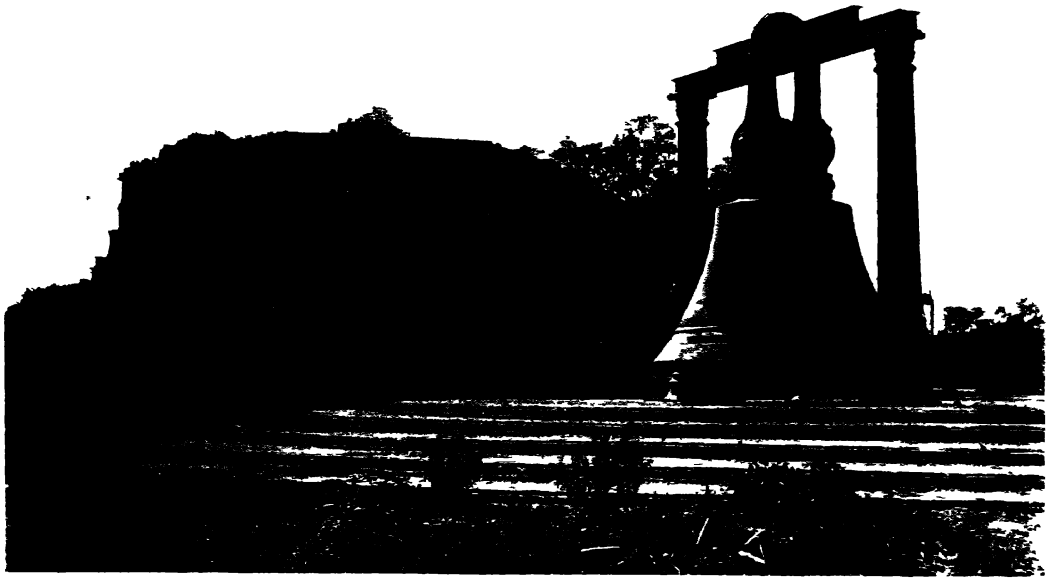
In 1860 Amarapura ceased to be the capital, and its place was taken by Mandalay, an entirely new town, which King Mindôn commenced when he ascended the throne in 1852.

Nothing need be said of Mandalay, which has already been described, but round Mandalay I would direct attention to the tombs of the Burmese Kings, Mandalay Hill and the Mingôn Bell.

Mingôn is a village in the Sagaing District, and the ridge which rises above it offers to whoever takes the trouble to climb it a remarkable

view of Mandalay, Kyauksè, Ava, Sagaing, and Shwebo. It stands fifteen hundred feet above mean sea level, and from its crest the view extends to the Sekyataung, in Myingyan District and to the mountains of the ruby-mines.

There are several famous pagodas at Mingôn · the Eindawya, built in 1662; the Setdawya, in 1790; and the Sinbyu-mibuya, built in the same year. Two ancient shrines, built by the King Thiridhammathawka in 866, the Shwemyindin and the Sutaung-pyi, are still standing, but the great wonder of Mingôn is the famous bell, which is said to be second only to the one at Moscow. It is hung from a stout triple beam strengthened with iron. The beam rests on two brick pillars surrounding two massive teak posts. They have been so shaken by various earthquakes that supports of wood were put under the bell, and these were carved with grotesque figures. In spite of all this the bell fell to the ground in 1895, and in the following year the Commissioner of Sagaing had it hoisted up again. Traces of gold and silver can be seen in the bronze, which have not mingled with the mass of the metal. The bell weighs about a thousand tons, according to popular Burmese report. As a matter of fact, the thickness of the metal varies in different parts from five and a half to over eleven inches, and its weight is eighty tons.



THE MINGÔN PAGODA AND BELL

I would also recommend two other excursions which can easily be made, the one by steamer, the other by rail. The steamer journey is from Mandalay to Bhamo by the defiles of the Upper Irrawaddy. The first defile narrows in the river to a channel about eight hundred yards wide. Here the river flows for a distance of twenty-five miles between a series of low hills densely covered with evergreen trees. The scenery is very fine. The forest growth reaches to the water's edge, and here and there on the river's brink one can see some Burmese fishermen's village hidden away among the greenery. The other defile, which is reached after passing through the flat country which separates the two, is much shorter. It is only five miles long, but it is much narrower, only a little over 150 yards wide, and the water rushes through it with many whirlpools and eddies. It is bordered on both banks by wooded hills, one of which rises 600 feet of sheer cliff from the water, and has on its face a small gilt statue of the Buddha.

There is far finer scenery to be seen in the mountains of Burma, especially in the Karen, Chin, and Kachin Hills, but these places are not easily got at, whereas the defiles of the upper river are easily viewed from the comfort of the deck of one of the Irrawaddy Flotilla steamers.

It is the same with the Hoküt (or Gôkteik) Gorge, which is reached by the railway from Mandalay to Lashio, and, as a matter of fact, there is a station at the Gôkteik. Gôkteik, or Ngôk-teik, is the Burmese name of a small Shan village, whose native name is Hokut. Both mean "the place where the water goes underground." It has become famous because, thanks to the railway, visitors may come from everywhere to see a phenomenon which is not by any means uncommon, but has the suggestion of the marvellous to the Oriental mind. This is the disappearance underground of the Nam Pasè, which vanishes for some distance into the earth and comes out again farther on. But the most striking thing about it, in my opinion, is the beauty of the surrounding scenery. There are delightful hill-slopes covered all the year round with flower-bloom, the clear splash of waterfalls, the freshness of the air, all of which reminded me of Yün-nan and its closed-in landscapes, which, when once they have been seen, can never be forgotten.

Above the gorge, from one hill-face to the other, a magnificent iron bridge has been built. This is a mighty work, which may be compared with the bridge over the Red River at Hanoi. Unhappily, this mass of metal does not blend well with the lines of the natural scenery.

There only remains to be mentioned another short journey which is not wanting in interest, the excursion to the ruby-mines. To get there one has to take the steamer from Mandalay to Bhamo and to land at Thabeitkyin. From this spot a road, not always over-good, but at any rate passable, leads to Mogôk, a distance of fifty miles. The journey is easily made if preparations have been arranged and ponies or mules ordered in advance. There is no need for hurry. There are dâk-bungalows or rest-houses for travellers, such as are called *Salā* in Indo-China, every ten miles or so. The road passes through a mountainous country well worth seeing, and leads to the Mogôk Valley, where all the mines are situated. Great numbers of labourers, Europeans, Eurasians, Burmans, Shans, Indians, and Chinese, are employed in the workings.

CHAPTER VIII

PRODUCTS

The most important products after rice—Teak. II. Cutch (catechu). III. Rubber. IV. Silk. V. Coal in the Shan States. VI. Tobacco. VII. Cotton. VIII. Mineral wealth—Petroleum. IX. The Mergui pearl-fisheries. X. Burma beans.

I. THE working and export of teak timber is one of the chief resources of Burma. Burma and Siam are the two chief producers of this universally used wood. Up to recent days the supply seemed inexhaustible, but of late Conservators of Forests have taken alarmist views and have warned the Government of Burma against the great diminution of teak in the forests and consequently on the market. The truth is that the Government and the private firms which are especially connected with the working of teak are beginning to be alarmed, and are afraid that the reduced production and the prices, which have risen so greatly of late, will lead to the use of other timbers in the place of

teak, and will deprive Burma of its position as chief producer of teak timber in the world. As a matter of fact, the teak of Java and the jarrah of Australia can be used instead of Burma teak for various purposes, for which up till recently nothing but teak was bought.

For some years now importation into Europe has fallen off, in the proportion of 40 per cent. Prices have risen very considerably. From £11 a ton they have gone up lately to £19 or £20, and English stocks have fallen off by 50 per cent. To this must be added a tendency to a reduced exportation to India on account of the competition of Siam and Java, and also because of the quantity of timber unsuited to Indian uses.

Siam teak has made great strides in the Indian market, and the minus value in the Burma export corresponds steadily with the plus value of Siam.

What are the causes of this reduced exportation of teak from Burma to India? There are several :—

1. The reduction in the Burma forests of the number of big logs of great diameter.

2. The increase in the cost of extraction because of the increase of the areas worked and their greater inaccessibility.

3. The greatly increased cost of elephants.

4. The increase in Government duties and the much more rigid rules for extraction.

The working of the forests is carried on in three ways: by Government agents, by lessees, and by temporary licence holders.

Government sells its timber by auction. It is obvious that lessees cannot allow competitors to buy teak at these auctions for a lower price than they get for their own operations. The exporters pay high prices for the Government teak to annoy the lessees, as well as to get the best quality teak required for the European market. Shippers, again, are obliged to buy in order to have a full freight.

The question is whether Government can do anything to steady the market. In order to secure this, it would be necessary to regulate the competition. But the competition between private firms among one another and the competition between private firms and the Government, as it exists now, are two absolutely different things. Government has financial resources restricted by no limits. Private firms are obviously kept down to limits. As long as the Government occupies the position of a rival dealer it can change nothing, whereas if the market were left entirely in the hands of the firms, they would be able to bring about an improvement in the present situation, and,

indeed, would be obliged to do so in their own interests.

Government should only maintain control in order to prevent the establishment of a monopoly, not only in respect of local requirements, but also with an eye on the export trade. Outside of this supervision, however, the private firms naturally have to look after their own interests.

It may be asked why Government does not undertake the working and steadying of the sales on its own account. The answer is that it cannot do it. Government, by its action, has, as a matter of fact, created a monopoly, which has raised prices to the highest possible limit, and in the present state of affairs it is unable to change the situation.

The lessees raise two sets of complaints, which are grave enough and have real foundation. First, the leases are too short, and secondly, the future is uncertain, for they have no sort of assurance that their leases will be renewed. And yet it is by means of private leases and private enterprise that the situation could be changed for the better. This would be a relief to the Forest Department, which has not a sufficient staff. The work would be done with more care and more zeal. There would be fewer risks of seeing the timber reaching the market too late. The annual

revenue would be more accurately known, and the country would be better opened to enterprise. The working by Government means perhaps brings in a little more to the Treasury, but it hampers the market and it checks both the development of the timber trade and of private enterprise.

The stock on hand should be cut down more rapidly than in a period of sixty years, as is the rule now. Plans and schemes should be drawn up so that the forest officers shall make a beginning of marking the reserve trees fit for felling. Leases might very profitably be granted for longer periods than at present, and with a guarantee of renewal if the working has been satisfactory. The State is a bad trader, no less abroad than in Europe.

It has been believed up till now, and nearly everybody still believes, that teak cannot be gnawed and damaged by any insect. This is true enough as regards ordinary and well-known insects, but it has been proved by forest officers and those engaged in the teak trade that teak is greatly injured by a special insect which is found in the Burma and Tenasserim forests. For many years holes have been found in some teak logs, some of them almost what might be called tunnels, and these went by the name of "beeholes," but nothing very definite was known about

the insect which caused this mischief, nor was it known at what period of the growth of the tree the injury was caused.

Mr. E. P. Stebbing, the Indian Government entomologist, began an investigation, carried out in the most careful way, of the teak forests of Burma, and he has published the result of his studies in a very remarkable report. He discovered that the so-called " bee-holes " are made by an insect of considerable size and brilliant colours. It is the caterpillar that does the mischief, and it belongs to the order of the *Heterocera*, and attacks trees of all sizes, down to saplings only two years old, which have woody tissue in their lower portion. Mr. Stebbing believes that the insect, which is what is known as a clavicorn beetle, deposits its eggs either on the bark or in a little crevice. The young larva, when it is hatched, feeds on the bark, but as it grows bigger, and as its mandibles become stronger, it begins to dig an irregular gallery, with passages radiating from it into the timber itself. When it has finished growing it drives right into the heartwood a tunnel from nine to twelve inches long, with a roomy chamber at the end of it. It is in this cell that the caterpillar changes into a pupa, and from it the complete insect comes out in the hot weather.

So far as research has gone, it seems that the

larva only attacks growing trees, and the result of this is that the holes by which it enters are covered up by new growths of the tree. Thus it happens that trees which look perfect outside may be seriously damaged in the heart by these "bee-holes." In some forests where the insect is common this is the most serious danger that foresters have to encounter. In the Mohnyin forests, for example, Mr. Stebbing estimates that from 40 to 50 per cent. of the trees have suffered from its attacks, and here and there nurseries of young trees have been completely destroyed.

Before we are able to say what sort of remedies are to be adopted against this destructive creature, it will be necessary first of all to know its ways and its methods of working. However, from what is already known there is enough to enable some precautions to be taken.

The woodpecker is a known enemy of the caterpillar, for it lives on it, but it does not put an end to the creature till the mischief has already been done, and, moreover, in order to get at it it digs into the wood and increases the damage already done. As far as the timber is concerned, it cannot be said that the services of the woodpecker counterbalance the mischief done to the trees. Consequently, one can hardly encourage the filling of the forests with woodpeckers. But much destruction can be prevented

by constant attention and constant examination. Even the Burmese coolies employed in the Mohnyin forests have enough knowledge of natural history for this, and they soon get to know the trees which have been attacked and have larvæ inside them. A diligent inspection of the trees at the time when the larva is still immediately below the bark might save many trees.

In plantations which are badly attacked, all the damaged trees should be ruthlessly cut down during the cold weather, in order to destroy at the same time the eggs which will hatch out in the spring months. Mr. Stebbing recommends the establishment of mixed plantations in the places where the insect is known to be numerous, for then it may be possible that the attacks will be shifted from teak to woods which are not so hard.

The remedy, so far, does not seem a very convincing one, and no doubt much more investigation is wanted to arrive at a final decision; but it is at any rate a great advantge to know the criminal, and doubtless a means will be found to defeat him.

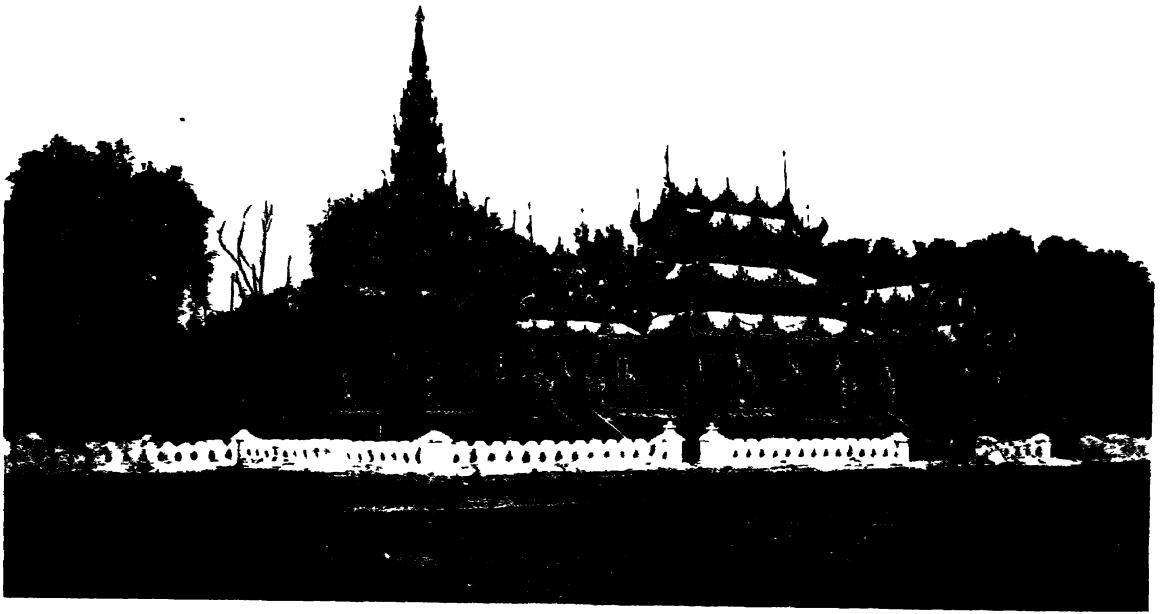
Teak has become so scarce in Burma, and even in Siam, and the prices have risen so high —they have doubled in ten years—that nearly 50 per cent. of the teak in London docks is

shown to be Java teak. Moreover, a great deal of the timber is neither of the quality nor of the size that is wanted. If, as a consequence of the present excessive prices of Burma teak, it has been necessary to look to Java for it, it is none the less greatly to be regretted that inferior Java timber has been shipped to London.

At the present time in Burma there is an effort to substitute *pyinkado* (ironwood) for teak in all the cases where it can be done. *Pyinkado* costs less than teak, and it is equally durable when it is not exposed to violent changes of temperature.

11. Cutch, or catechu, which must not be mistaken for cashew, as it frequently is in France, is a product of one of the acacia group of trees. This tree, which is found from Kashmir right across to Pegu, is not the same everywhere, and differs a little according to the degree of latitude, although the product is nearly the same in all the different varieties.

Cutch is a product of India and of Burma, used for dyeing and for tanning, and the Pegu cutch is admittedly the best. Much of it is exported from Rangoon to London, and a certain amount to Havre. I therefore think it desirable to consider it at length from both the horticultural and the commercial point of view. It may be divided into:—



Plate

KING THIBAW'S MONASTERY, MANDALAY

Photo by Co Mandalay

1. The *Acacia catechu*. This is the variety which is found in the more northerly parts. It grows in Hazara, Kashmir, Simla, the Kangra Valley, Garwhal, Mussoorie, Central India, Behar, and Ganjam. It is never found in the Eastern Himalayas or in Assam, and in Burma it is only found in Pegu, where it is called *Sha*. It is this acacia which produces the grade of cutch called *Kumaon*, or *papri Khair*.

2. *Acacia catechuoides* is found in Bengal from Monghir and Patna to Sikkim and Assam, and also in Burma. Although it is quite common in Pegu and Prome, it has not yet been found in the Shan States, nor in Upper Burma north of Ava. It is this tree which produces Burma cutch; Pegu and Rangoon cutch are the best known.

3. *Acacia sunara* is found most commonly in the Presidencies of Madras and Bombay. It flourishes from Coimbatore to the Deccan, in Kangra, and in the Konkan, and it has been reported from Kathiawar and Rajputana. In Burma it is found near Mandalay and Sagaing and in the Shan States. The cutch produced from it is the red variety or *lal Khair*.

The method of preparing cutch is much the same in Burma as it is in India. If there are many trees, the workman cuts into the heart of

the tree before felling it to see if the wood is speckled and if it contains *ugyi*, a special kind of sap-pith which furnishes the cutch. If spots are found, it is an assurance that hard cutch will be got, which is very much more valuable than the soft. The presence of *ugyi* is of the most vital importance, and trees which have not spotted wood are rejected if there are enough of the others. Cutch-boilers recognize four kinds of *Acacia catechu*, which are distinguished by their bark and by the colour of the heart-wood. These are: the *Sha ni*, or red cutch; the *Sha wa*, or yellow cutch; the *Sha bya Kyaung mwe*, or blue cutch; and the *Sha net*, or black cutch. Of these four kinds the red cutch is considered the best. Blue cutch cannot be used alone; it must always be mixed with one of the other kinds.

The selected trees are stripped of their bark and of the outer wood and are cut into six-foot lengths, or a little longer. These billets are then hacked into small pieces, which are then boiled in earthen pots which hold about three gallons of water. The liquor is then shifted into a big iron caldron, holding eleven gallons, and is boiled until it becomes viscous. It is very important to keep constantly stirring it. The caldron is then removed from the fire, and to prevent the cutch from solidifying on the surface it is stirred

constantly with a wooden spoon until it has cooled sufficiently to be handled. It is then poured into a brick mould, which is usually lined with leaves, and left there to cool. The result is a mass of dark-coloured cutch, which varies in consistency according to the amount of *ugyi* there was in the wood. The process of preparation is practically the same in Upper and in Lower Burma.

Cutch is made in the following places: Minbu, Pyinmanā, Yaw, Mu, Mandalay, Katha, and on the Chindwin, in Upper Burma, and Pegu, in the Lower Province. In the Yaw forests the quality of the cutch boiled is a little different from the ordinary kind. It is boiled in the usual way and is then poured into bamboo baskets to see whether it will harden. If it is hard, it is put back into the caldron and melted again. A certain quantity of *than*-bark (*Terminalia Olivieri*) is then added to give a colour to it and to make it harder. Then it is placed in conical moulds dug in the ground and lined with the leaves of the *Cassia fistula*, or Bauhinia. When the cutch is hardened the leaves are torn off. This cutch is made specially for the Shans, and is intended for chewing. It sells in Bhamo at between twenty and thirty rupees the hundred pounds. The amount made for chewing is comparatively small.

Burmese cutch is often made in small blocks. In the Sinbyngyun jungles, near Minbu, three kinds of cutch are known, black, yellow, and red. The colours are most readily seen when it is being boiled.

In Pegu yellow cutch looks like round cakes. On the outside they are a brownish yellow; inside reddish brown.

At Prome cutch is sold in balls. The Pegu cutch is sold to the trade through Rangoon to Calcutta. It is made in great solid slabs, weighing sometimes a hundred pounds, or sometimes in square cakes, six inches long and one inch in thickness. They are usually wrapped in leaves of the *Dipterocarpus tuberculatus*, the *Stephegyra diversifolia*, or the *Tectona Hamiltoniana*. This cutch is dark brown and is broken into irregular pieces, which are either compact or porous, according to the heat applied when drying it. If it is cut with a knife, it shows a reddish-brown colour. This kind is known on the Calcutta market as Pegu, Ranguni, or *Mogal Khair*, and it sells at the rate of 26 rupees the maund (82 lbs.).

The Burmese sometimes use other plants to mix with the cutch and adulterate it. The use of *than* (*Terminalia Oliveri*) has been mentioned above. Other admixtures are *than-Kyan* (*Terminalia tormentosa*), *leiu* (*Terminalia*

biolata), *Kyanga* (*Terminalia chebula*). *Pyinkado* (*Xylia dolabriformis*), *Pyinma* (*Lager strœmia flos regina*), and the *Ngabo* (*Ordina Woodier*) are also used. All these barks are more or less astringent, and are perhaps rather substitutes than adulterations. The extract of the juice of the *Terminalia Olivieri*, for example, is very rich in tannin. Nevertheless, the colouring matter is not so good, and when it is tried on calico gives inferior results. This bark, therefore, would be more useful for tanning than for dyeing. However that may be, the Rangoon Chinese have no hesitation in mixing it with pure cutch.

Cutch production is beginning to fall away before the gambier of the Straits, which is exported from Singapore. For the last five years the export of cutch from Burma has been about nine million pounds, with a value of nearly two million rupees. The United Kingdom takes half the export. France, Germany, the United States, Holland, China, and Ceylon divide the remaining half among them.

The following marks are those most popular in France :—

"B. B.: The Bombay Burma Trading Corporation, Limited.

Rose and Eagle: Messrs. Finlay Fleming.

F. Bull: Messrs. Bullock Brothers & Co.

B. B. Flag: The Arracan Company.

I think it as well to again remind our French merchants that they must not mistake cutch, or catechu, a product of the *Acacia catechu*, which is used for dyeing and tanning, with the cashew, the fruit of the *Anacardium occidentale*, whose product is oil.

III. Rubber is a product in such great demand nowadays in so many industries that make such various and such extensive uses of it that there is no country that is not preoccupied with the idea of preventing this precious material from running short. Plantations of creeper rubber have been experimented with in every country where the climatic conditions seem to be favourable. Burma has not lagged behind, and both the Government and private effort have set about making extensive plantations. In 1900-1 the British authorities made an experimental plantation in Mergui. It covered an area of 780 ares (about 20 acres) and cost Rs. 229,871. By 1906 there were 8,352 Hevea plants, with a girth of nearly 24 inches, which were so completely successful that they produced 1,908 lbs. of rubber, which realized £347 on the London market. From this prosperous beginning the Government plantation has gone on improving, and it is the same with private ventures.

In 1904-5 the value of the rubber exported

from Burma amounted to Rs. 412,000, and in 1905-6 this had risen to Rs. 534,000. Private individuals mostly prefer the *Hevea brasiliensis*, which thrives very well in Lower Burma, and several companies have lately been formed to carry on the plantation. Now that it has been very clearly proved that this kind of rubber gives good results the expansion of the industry is merely a question of time. Last year (1911) the amount of rubber exported represented a value of Rs. 409,609.

In Upper Burma, where the climatic conditions are different, and mostly unfavourable to the cultivation of *Hevea brasiliensis*, an experiment might be made with *Ceara* and *Castilloa elastica*, which have been very successfully grown in Ceylon up to 3,000 and 4,500 feet above sea-level.

The late W. S. Todd was the first planter of the rubber-tree in Lower Burma, and perhaps it will not be without interest for those who wish to try the experiment in Cochin-China and Cambodia to learn the result of the experiments of this Englishman. They have served to prove that no rubber-tree but the *Hevea brasiliensis* is likely to be successful in the low plains of Indo-China.

In 1899 Todd began by sowing eight thousand *Hevea brasiliensis* at Kyaukadat, about nine and

a half miles from Amherst, on the Gulf of Martaban. Although the seed of this rubber-tree has the name of accommodating itself to every kind of soil, the choice of the ground for the plantation was not very easy, because of the composition of the soil of the whole neighbourhood of Amherst, which is almost everywhere a kind of brick-clay. The best soil is one which is composed of a deep layer of vegetable mould with a clay subsoil. Sandy or gravelly ground and stiff clay should be avoided. From the first 8,000 seeds something like 4,800 came up, and were raised in nurseries. The seeds were planted at a distance of not quite eight inches from one another in six-feet beds. At the beginning of the monsoon of 1900 the young plants were planted out on land where the jungle had been burnt at distances of from twelve to eighteen feet from one another. Todd did not approve of the planting out of nine or ten month old plants. He thought it much better to keep the seedlings two years in the nursery before setting them out.

The chief thing to be careful of in this stage is the preservation of the roots, which are quite extraordinarily long. There is a good deal of risk of harming them; but, on the other hand, this method has the great advantage that two or three year old saplings throw out branches

much more rapidly and grow up quickly, so as soon to be beyond danger from browsing animals, such as the sambhur and the *gyi* (the barking deer). Another advantage is that there is no need to prune the trees during the two years they are in the nursery, and, moreover, the soil remains fresh and unbroken.

When the planting out is done it must be seen to that the holes are deep enough to receive the whole of the roots without injury. The best time for the operation is in cloudy weather, after the ground has been sufficiently moistened by the early rains. The plants thus get humidity during the day, without rain, or with very little of it, while at night there is rain and plenty of it.

If there are means of protecting the young seedlings from the depredations of deer and goats, broadcast sowing is recommended, just as it is practised by forest officers in teak nurseries, and the results are excellent.

In the nurseries the ground must be carefully levelled and well watered. The beds must not be more than six feet wide or seven and a half inches high. Between the beds there should be a path eight inches wide for watering, pruning, and examining the trees. August is the month for sowing in Lower Burma, so that there need be no watering before February.

Even then, though it is worth while doing it, it is not absolutely necessary to water them. At any rate, if the trees are not watered, they must be manured at the roots. If irrigation is possible, it is far better than mere watering of the surface. The water ought to be brought in along the path, and should remain standing round the plants for two hours, so as to thoroughly water the beds. Besides the nursery plants, it is as well to have some reserve plants, in order to be able to fill up blanks, which are likely to occur in the first year.

Opinions differ very widely as to the distance that should be left between the plants. Todd, after a series of experiments, came to the conclusion that the best distance was seven and a half feet by seven and a half, or, say, 1,930 trees to the acre. Moreover, in calculating the distance between the plants it has to be taken into account what supplementary cultivation is to be carried on in the spaces. If, however, as is almost always the case, the main thing is the rubber, the by-products do not much matter, and everybody is agreed that the seven to eight feet interval is the proper one. The chief crops recommended between the trees are yams, bananas, cotton, and leguminous plants. The last are particularly useful because their leaves supply quite an excellent manure.

Let us now see the expense and the profit of a ten-acre plantation of *Hevea brasiliensis* at the end of the ninth year.

The total expenditure, on all counts, at the end of the ninth year would be Rs. 34,800, or Rs. 348 for the eighth of an acre. In the expenditure must be included a sum of Rs. 13,100, which represents the interest at 7 per cent. of the yearly outlay.

The sale of the rubber from the sixth to the ninth year inclusive will bring in Rs. 68,800. If a sum of Rs. 21,600 is added to the expenditure to cover the cost of superintending the plantation at Rs. 200 a month for nine years, the total expenditure will amount to Rs. 56,400 and the takings will be Rs. 68,800, which leaves a net profit of Rs. 18,400 at the end of the ninth year. From the tenth to the thirteenth year an average of a pound for every tree may reasonably be counted on. For the eighth of an acre, therefore, there would be 19,300 lbs., which at two and a half rupees the pound would return Rs. 48,250 a year, a little more than £3,000 sterling.

These figures are good enough to tempt those who have capital to invest. The soils of Cambodia and Cochin-China should certainly be as well fitted for the profitable cultivation of *Hevea brasiliensis* as those of Lower Burma.

A plantation of para rubber was tried in Rangoon. It has an area of 3,124 acres, and in 1911 it produced 4,328 lbs. of rubber between July and November, and the estimated outturn for the future is calculated as follows :—

		Pounds.
1911—12	an out-turn of	17,500
1912—13	„	31,200
1913—14	„	100,400
1914—15	„	229,600
1915—16	„	314,800
1916—17	„	677,300
1917—18	„	904,800

It has to be remembered that the more the tree reaches the producing stage the less the cost of upkeep becomes, for the tree has gained strength and does not need so much attention. The probable output of 1917-18 will realize a net profit of £45,000 on a capital outlay of £190,000, which implies a very satisfactory dividend. Obviously for a year or two the shareholders must be satisfied with very modest returns, but the future prospects are most rosy.

The Mergui plantation, which was started as an experiment by Government, has been handed over to a company, which at the present time has an outturn of 100 lbs. of rubber every day. For two more years, in accordance with the resolutions adopted at a meeting of shareholders

in January last, there will be no dividend, but as an output of 1,000 lbs. a day is expected from this year onwards it is anticipated that all outlay expenses will be covered, and that a dividend will be paid to shareholders from October, 1913. Another company has been started in Maulmein, but it is still in the preparation stage, and no returns are expected before 1915.

IV. Silk is the chief material the Burman uses for his clothing, even for everyday use, if he has the means to pay for it. But this silk used to be not by any means common in the country, and it came from China, mostly from Canton. The Lyons silk trade at one time succeeded in taking a prominent position in Rangoon and Mandalay, and made great profits. I may mention the firm of Beyer and Katz, of Lyons, which has now disappeared. Every year it sent a commercial traveller, and did a brisk trade. The trade must have been large, for every year the firm had a profit balance of sixty or seventy thousand francs. This Lyons firm worked in conjunction with the English firm of Steel Brothers, and members of that firm have expressed their astonishment to me that no French firm has taken up the business which Messrs. Beyer and Katz have abandoned. There was also M. Charmettant, who is still a merchant

at Lyons and member of the Chamber of Commerce, and had a representative at Mandalay.

But after the third Burma War, for no very obvious reason, all the Frenchmen who were in Mandalay and all those who did business with the Burmese gave up the connection. This was a very grave mistake, for the Frenchmen who remain and are all too few have nothing but praise for the wide liberty given to everybody by the English.

At the present time silk is practically all supplied by Japan, which has supplanted us and is not at all ready to resign the position. Except for some rich Lyons stuffs sent in small quantities for very elaborate Burmese dresses, the great French city sends no more. Every year Japan sells two million rupees worth of silk to Burma.

In the silk import figures for the Rangoon port, the name of France now does not appear at all. Japan stands at the head, and then, a very long way after, comes Great Britain. What few Lyons silks are brought in are those which have been bought by British agents and are sent under the British flag.

In view of the great demand for silk among the Burmese, the Government of India has tried to promote silk cultivation in the country. Silk cultivation existed, as a matter of fact, but it

was in a very rudimentary condition. There were silkworm breeders at Prome, Toungoo, Pyinmanā, Yamèthin, Magwe, on the Chindwin, and in Pokôkku, but the occupation was not a thriving one, and at the present time, instead of growing, it is dwindling away. In the Myedè and Thayetmyo neighbourhood a variety of silkworm is found known as the *Bombyx fortunatus*, which has white and yellow markings, and the silk which it spins has been considered excellent. The *Bombyx aracanensis* has only been found in the Pakôkku neighbourhood.

The Shans also do a little in the way of silk cultivation, but the silk is of very poor quality on account of the little care devoted to the rearing of the worms. The two kinds of silkworm most widely found in Burma are the following: the domesticated silkworm, which feeds on mulberry-leaves and is known by the name of the *Bombyx aracanensis*, or the *Bombyx fortunatus*; and the wild silkworm, which does not feed on mulberry-leaves but on various trees, and is found in the jungle. There are two species of the wild silkworm: the *Cricula trifenestrata* and the *Attacus atlas*. The worms of these two species produce cocoons several times in the year, but the cocoons are small, and the thread is so badly spun and so loose on the cocoon that it is almost impossible to

prevent it from being ravelled when it is wound off. Nevertheless the silk of the *Cricula trifenestrata* is very fine, but owing to the irregularity of the thread and to a kind of gum which clings to it, proper winding of it is impossible, and it is mostly used as waste silk. When modern processes are introduced, which naturally are constantly being improved, there is no doubt a great future before this kind of silk. The Rangoon Government offers great incentives to those who will devote themselves to silk culture, and numerous experiments have been made.

On the initiative of Sir Thomas Wardle, the President of the Association of Sericulture in Great Britain and Ireland, and also the introducer of silk into Kashmir, experiments were made in 1903 and 1904 with silkworm eggs brought from France. They were distributed in the various silk cultivating centres and also in the Shan States. The eggs were brought straight from France and hatched out satisfactorily, but the larvæ almost all died immediately afterwards. This misadventure was attributed to the fact that the eggs were hatched two months before the young leaves of the mulberry appeared, and also to the climate. But though the failure may be ascribed to these causes, it is none the less true that the main reason of failure lay elsewhere.

It was due in actual fact to bad management and to the general ignorance in Burma of the proper way of treating the larvæ. If there is any intention of permanently introducing French silkworms into Burma, it cannot be disputed that careful attention is needed as well as expert instructors. These are non-existent, not merely in Burma, but even in India. But since it is obvious that in the silk industry there are considerable advantages to be gained for the people, it cannot be doubted that the Government of India will carry out thorough researches and experiments.

V. At Lashio, the terminus of the railway from Mandalay with the Shan States, the Government has made some trial borings in tracts which seemed likely to yield coal. Trials were made in four separate places: Lashio, Namma, Nansang, and Mansalè. The results have not been satisfactory, and the coal found in the Shan States appears to be useless, not merely from the industrial point of view, but even as steam coal for the railway.

The report of Mr. La Touche, head of the Geological Survey of India, winds up as follows: "The Lashio coal is a brownish-black lignite, with conchoidal fracture with a specific gravity of 1·53. In the open air it burns badly with a pale flame and a strong smell of sulphur, and

it crepitates badly as it burns. As it is dug out of the mine it is fairly hard and is brought out in fairly big lumps, but as soon as it is exposed to the air it disintegrates and crumbles into small pieces. The various samples analysed give the proportion of carbon as 34:24, 30:60, 28:64, 20:72, and 37:40. The results as far as locomotive steam-coal is concerned, have been disappointing, and it may be asserted that the coal as it comes out of the ground is altogether useless for the railway. If it is made into briquettes, the cost would come to six rupees the ton, and if five rupees a ton is added for transport, the coal might perhaps be used in Bengal, and perhaps briquette-fuel might become the chief means of producing steam on the Mandalay-Lashio railway, but it is clear that it will never have more than a local market. The Nam-ma coal is found in Hsenwi and Hsipaw, both in the Northern Shan States charge. The field extends over an area of ten miles to the south-east of Lashio. The coal here is a bright lignite, with a specific gravity of 1·37. It is black, with brown rays through it. It does not coke well; it does not appear to contain too much iron pyrites. It is hard, but brittle, has few or no fissures in it, and has a conchoidal fracture. It is not easily worked on account of the way it crumbles, but with a little

care on the part of the miner big pieces can be brought out. As soon as it is exposed to the air it becomes dry, disintegrates, and breaks into small cubical fragments. It holds very little carbon, and is full of moisture and volatile constituents. The only good quality it has is the small amount of ash. In the open air, when it is freshly extracted, it burns well with a clear flame, with perhaps too much smoke and a peculiar smell. It is superior in quality to any of the other coals found in the Northern Shan States, but nevertheless it cannot be used for fuel except in the shape of briquettes. In November, 1905, a trial was made with the coal on the line from Lashio to Mayunyo under the direct supervision of the Engineer-in-Chief of the Burma Railway, but it was a complete failure. The engine-driver had to get billets of firewood to bring the locomotive back to the place it started from.

Recently seven tons of Nam-ma coal were given to the railway for trial. Although there was reason to hope for good results from this fresh trial, the locomotive-superintendent wound up his report by saying: "Although this coal burns in the usual way when it is fresh-mined, and although there was a good draught, it is quite unsuited for a steam-coal."

It is annoying, for it is estimated that there

are five hundred thousand tons of coal available at Nam-ma, and this coal is useless unless it is made into briquettes. The only purchaser would be the railway for the Lashio-Myohaung section. At present it uses wood fuel at 4 rupees 2 annas the ton, and Bengal coal at 17 rupees 13 annas. In order to make Nam-ma coal into briquettes and to lay it down for the locomotives it would be necessary to spend at least twenty rupees the ton, and perhaps more. There is therefore absolutely no chance of seeing this coal enter into competition with any imported fuel whatever.

Mr. Simpson, of the Geological Survey of India, who was in special charge of the testing of this Nam-ma coal, winds up his report as follows: "It may be confidently asserted that as the coal is now, it would be a mistaken policy to expend money on it. Before thinking of putting the coalfield in touch with the railway by a good road, or of carrying on regular extraction, more extensive prospecting would have to be carried out to make it certain that the mine would furnish coal over a very long series of years. There is, moreover, another question which complicates the situation, and that is labour. The Shans are not miners, and the population is a very thin one.

The Man Sang coalfield is in the neighbour-

hood of the village of that name, about seven and a half miles from Möng Yai, the capital of South Hsenwi State. Here the coal is hard. It is a schist lignite with a specific gravity of 1·40. Its colour varies from brown to black, and though it sometimes is glistening, it is more commonly dull. In other respects it is very like the Lashio and Nam-ma coal, and has the same crumbling tendency when exposed to the air. Its chemical composition is the same. The coalfield lies about fifty miles distant from the railway, with very broken country in between. It is not likely that this coal will ever be used, for it has no economic value. The Man Salè coalfield lies east-south-east of the Nam-ma deposits. The seam here is a thin one, and does not produce a great deal. The quality of it also is inferior, and the place where it is found is very difficult to get at. It seems therefore extremely unlikely that this coalfield will ever be of great value.

These brief notes on the Shan States coal-measures prove clearly what French engineers had already shown for the West of Yün-nan Province, in the neighbourhood of Tali and Ssumao and the adjoining Chinese Shan States, that there is no good coal to be found there.

VI. The Burman smokes a great deal. Men, women, and children, one may say, smoke from

morning to night. But it is not pure tobacco they smoke. They mix other fragrant herbs with it. They rarely smoke pipes. The modern "educated" Burman smokes a briar, and in former days there were holes bored in the floor of the Hall of Audience through which ministers of state could pass the bowls of their pipes, which were filled and lighted by attendants. But cherut-smoking is the rule. This implies that the cultivation of tobacco is very widespread in Burma, and Government has thought it desirable to encourage the planters by bringing in foreign tobacco-seed and distributing it among them. Almost every part of the province has been tried and success has been general, more particularly in the Chindwin Districts of Upper Burma.

The soil of some districts, especially Ma-ubin and the Upper Chindwin, is excellently suited for the growth of tobacco, and foreign tobaccos have been experimented with. In 1888 different kinds of seed were brought from Havana and from Virginia. The results were so successful that all the tobacco-fields in these districts are now planted with these seeds, and the leaf is excellent. The area of land under tobacco has steadily increased, and all the new plantations are sown with Havana and Virginia seed.

The Department of Land Records and Agri-

culture has given great support to tobacco cultivation, and there can be no doubt that it is to its efforts that the good results are due. To encourage the growth of foreign tobaccos, seed has been distributed free for twenty years through the District officers. It is especially in the Ma-ubin District that the best results have been obtained with American tobaccos. Official reports show that there has been a distinct improvement in the tobacco produced. It is far superior to that of the plant formerly cultivated in Burma, which is believed to have been brought in by the Portuguese. Of the two American varieties, the Havana plant did especially well. The Virginia plant, though its texture is very fine and very pliable as far as the leaf is concerned, is less profitable, because of the smallness of the leaf. There is always a great demand on the market for both the Havana and the Burma tobacco. The smooth leaves of the Havana plant are used for the wrappers and the coarser Burmese leaf for the filling.

The Upper Chindwin has also been found very suited to tobacco plantation, and it is thought that the variety which comes from Coringa, near Dindigul, in the Madras Presidency, or even the Java plant would do very well there. Havana seed has also done very well here, and the

leaves have been particularly fine. The people of the country, however, are absolutely ignorant of the way to cure it. It is probably for this reason that there are no makers of cigars of the European shape in Burma, and this is why Burma tobacco-leaf is sent to Southern India to be made up there.

In the Lower Chindwin District seven grammes (quarter of an ounce) of seed gave a return of sixteen pounds of tobacco, while at Myitkyina, quite in the north of Burma, half a pound of seed produced a thousand pounds weight of tobacco. The soil which gives the best results is a clay soil which is new and friable, and not too stiff a clay. Alluvial soil, with an admixture of sand, and high lands fertilized by burnt vegetation are no less favourable. Everywhere where the various kinds of Havana and Virginia seed have been tried, the leaves have given a finer texture and a stronger perfume than those of the local tobacco, and have commanded a higher price. In some places there have been disappointments, but this has been invariably due to mistakes in choosing the ground. Occasionally, also, the method of treating the leaves has been very primitive, and this has been a very general cause of failure. None the less it may be predicted that before very long Burma tobacco will be



A CHILEAN CHIROCA

able to compete on the European market with the tobacco-leaf of Java and Sumatra.

The growth of tobacco in Burma cannot be disputed, but the proper treatment of it simply does not exist. It is from India that all the cigars of European shapes that are smoked in the country are sent, and it is India that takes the far greater amount of Burman tobacco, makes it up, and sends it back in the shape of cigars. Still, besides the native cigars, smoked by the Burmese, which are a mixture of tobacco and fragrant plants, both Rangoon and Mandalay turn out a kind of cherut—that is to say, a cigar cut at both ends which is smoked by Eurasians and some Europeans. Burmese girls are the ordinary rollers of these cheruts, which are only smoked locally and have very little chance of being well received out of the country. Still, though the cherut is undoubtedly full-flavoured, there are a not inconsiderable number of people who acquire the taste and like the flavour even among those who have never been in Burma.

VII. Cotton, which has obviously been introduced from India, is cultivated in almost all the districts of Upper Burma, and in almost half of those of Lower Burma. In Lower Burma the turn-out is not large and is intended for home use only, and as a matter of fact the area

under cotton is diminishing every year. Since manufactured cotton has been imported at low prices from abroad, native weaving has become a means of passing the time rather than an industry, and the women do no more than weave the clothes and the cloths that are used in their own houses. In some districts, such as Meiktila and Myingyan, cotton is also grown for export to China, by way of Bhamo. Up in the hills, and also in some of the Upper Burma districts, native cotton still competes with the imported material, especially in the Shan States, where the difficulties of transport protect the local cotton against foreign competition. But as a general principle it may be admitted that where foreign cotton can be delivered, either in the form of yarn or of manufactured cloth, the native product dwindles away.

There is no weaving whatever done in Kyanksè. At Taungdwingyi more than three-quarters of the manufactured cotton comes from abroad. At Pyinmana, in the Yamèthin District, the cotton industry was very flourishing under Burmese rule, but it has almost entirely ceased now that the Forest Department forbids the promiscuous cutting of the trees whose bark furnished the dyes used. At Pakôkku, also, the imported thread is preferred. In fact, officers almost everywhere have announced a decline

in the cultivation of native cotton—in Katha and in the Upper and Lower Chindwin. It is only in the Ruby Mines District that the imported material has not made itself felt, but the reason there is the same as in the Shan States, the difficulty of communications and the consequent high price of foreign cotton as compared with the local product. In Meiktila District there is more native cotton than foreign, but that is because of the outlet for it in Yün-nan Province, by way of Bhamo, as is mentioned above. But in the larger centres, such as Meiktila headquarters town, and several others of similar size, the foreign cotton is always used. However that may be, the cotton-planters and the weavers of the district will naturally go on producing their cotton as long as they find purchasers in China. The Shans also sell their surplus cotton to the Chinese, and every year Chinese caravans from Yün-nan come to load up raw cotton and cotton stuffs, and they pay quite good prices.

As a whole, however, it may be said that wherever foreign cotton can penetrate, native cotton tends to disappear, and the only districts where local cultivation remains steady are Meiktila and Myingyan, because they find customers in Yün-nan and in some of the South China ports. The Meiktila cotton trade, more-

over, is entirely in the hands of Chinese settled in Bhamo, Meiktila, and Rangoon.

Burmese cotton is like Indian cotton, and has the same faults. The staple is too short for most machines, and, moreover, the Burmese are not able to bleach it thoroughly, which takes away from its value. Attempts have been made to establish the American long-stapled cotton in Lower Burma, but the experiment was not a success, and the failure is thought to be due to the climate. In these days Burmese cotton is ordinarily sown in ground cleared of jungle, such as the Burmese call *taungya*. Red rice is sown along with it, and the soil is not manured, and is only scratched with a very rudimentary harrow. The cultivator himself both grows it and gets it ready for the market. This preparing is often so badly done that the buyer finds sand, earth, and stones in his purchase. Moreover once it has matured and has been picked, it is often left unprotected on the ground, and thus it is that it comes to be delivered dirtied and full of rubbish of all sorts. The planters stand badly in need of some object-lessons to make them understand that they would get much better prices if they offered their produce in a more reasonable and attractive form.

VIII. Burma has considerable mineral wealth in gold, which is far from having received full

development, but will in the future add greatly to the well-being of the country.

Gold is found in the extreme north, not far from the Chinese frontier in the Myitkyina District, and the auriferous quartz there is very rich. But the company which has the concession has not yet begun working.

Gold is also won by washing the sands of various streams, especially at Ban-mauk in Katha District, and also in the Pakôkku District. The company which has undertaken the dredging of the Upper Irrawaddy has had an average return of from Rs. 35,000 to Rs. 40,000 worth of gold, out of which it pays Rs. 10,000 royalty to Government.

The Nanyaseik ruby-mines in the Myitkyina District have been given up, and there are none worked now except at Mogôk. These, however, are still far from being completely developed, and they are still going through periods of difficulty which make it necessary for Government to give the company time for the payment of royalties on the workings. This was the case in 1909, at which late date the company applied to the authorities for the remission of the dues in arrear, on the ground that a new mine had to be opened out, since the old ones were exhausted.

The Tawmaw mines in the Myitkyina District

produce a kind of jade, called Burmite, but in no great quantities. Those of Hwe Ka and Mamon in the same district, as well as those in Pakôkku, have up to the present been unsatisfactory.

The outturn of tourmaline in Hsipaw and in Möng Mit, in the north of the Shan States, is not very considerable, and it has not much chance of expanding on account of the competition with the tourmaline of Cambodia and of the Nam Hkawng Valley.

Amber comes from the Hukawng Valley to the north of Myitkyina, but the output reaches only a total of Rs. 5,000.

The Bawdwin leadmines, worked by the Burma Mines Company in the Northern Shan States, have an outturn of 6,000 to 8,000 tons of lead, and about 1,000 lbs. of silver.

In the Southern Shan States, which up to now have been little developed, there has been nothing more than an outturn of a matter of 100 tons of lead. Lead was also found at Mount Pima in the Yamèthin District, since closed down, and at Sagadaung, near Mandalay, as well as argentiferous galena, which exists in very many places in the Myelat.

Tin is found in Tavoy and Mergui, as also is wolfram. There is a very rich tin and wolfram mine at Mawchi in Karen-ni. The Pakôkku and

Minbu hills have much soapstone. A mining company has extracted nearly every year from 7,000 to 8,000 tons of iron; as far as antimony is concerned, the output has ceased, provisionally at any rate.

Many of these mines, especially those of lead and iron, are only just beginning work, and the companies which have taken out leases are only working in a cautious way. It is for this reason that the output is so small, but there is every reason to believe that the mineral development of the country will go on unceasingly.

Quarries have made much greater progress, for stone and clay are in great demand for the manufacture of brick and the building of houses and the metalling of roads and railways. Clay is found in great abundance in Hanthawaddy, and there are many brick-kilns. Lime is worked in Meiktila, Mandalay, and in the Northern Shan States. There is much granite in Thatôn and on Kalagauk Island in Amherst District. The Sagyin quarries near Mandalay produce marble and alabaster. The output of these various quarries in 1910 was:—

	Tons
Fireclay	1,123,347
Granite	7,733,855
Laterite	302,938
Limestone	104,797
Gravel	119,087

together representing an approximate value of Rs. 8,000,000.

Quite recently an important discovery of various metalliferous deposits has been made in the Kachin country by Mr. B. A. Baldwin, an old resident of Burma. Among the metals discovered are gold, platinum, osmiridium, iridium, palladium, rhodium, and osmium. After his return from Khamaing, in the Kachin hills, Mr. Baldwin obtained a series of prospecting licences from the local Government. The area is on the Nam San, an affluent of the Mogaung River, about twenty-five miles from Khamaing. Access to it by water is easy in the rainy season. A Government launch has been as far as the mouth of the hill stream at Laban, and this is only a short distance from the deposits, which are in an alluvial plain at the foot of Loi Maw, a hill which reaches an altitude of nearly six thousand feet. The Nam San, which runs down the valley, has cut a deep channel for itself in the alluvial soil, and enters the Nam Kawng, or Mogaung River, close to Laban village. There is no clay deposit, nothing but sand and round pebbles. The seam to be worked is estimated to have a width of nine to twelve feet throughout the area, and it is still thicker when the rocky bed is reached. A company has been formed in Rangoon to work the minerals, and has proposed

to the Burma Gold Dredging Company to join in the project and send one of its dredgers from Myitkyina. Communications are easy, for all through the rains Government launches carry on a service from the Mogaung railway-station to Khamaing. From Khamaing a light-draught launch could easily carry on the service to Laban, at any rate during the rainy season. In the dry weather mule transport would have to be used.

All the neighbouring country is inhabited by the Kachins, but the Burmese are beginning to establish themselves also, for the rice-land is very good and gives heavy crops. The climate, too, is healthy, even for Europeans.

One of the chief sources of the mineral wealth of Burma is petroleum. In Lower Burma some wells of no great importance have been in existence for very many years in Pegu and in Arakan; but it is chiefly in Upper Burma in the Yenangyaung neighbourhood that there is much oil, and oil easy of extraction. For many years in the time of the Burmese kings, petroleum was a royal monopoly, and King Mindon had an annual revenue from it amounting to Rs. 600,000. The wells were in the hands of a corporation, who worked them for the Crown. The first oil-workers were probably Arakanese prisoners of war, who knew how to set about the work from having carried it on in their own

country. The Yenangyaung earth-oil was not extracted in systematic fashion until the middle of the eighteenth century, but it seems clear that the existence of the wells and the character of the oil were known for long centuries before.

There are many English travellers, notably Captain George Baker in 1749 and W. Hunter in 1782, who have recorded great activity in the extraction of earth-oil both in Lower and Upper Burma.

The Pagān wells, which are better known as the Yenangyat wells, were not discovered till some time between 1855 and 1873, and they are not nearly so rich as those of Yenangyaung.

Wells have also been found at Mimbu. At the present time the only oil-wells which produce very large quantities are those at Yenangyaung in the Magwe District. They alone produce from 65,000,000 to 70,000,000 gallons out of the 250,000,000 gallons which form the total of all the wells of the Province. The Yenangyat, Singu, and Kyaukpyu wells seem to be approaching exhaustion. Those at Akyab have been abandoned.

At Yenangyaung the Twinsa Oil Company and the Aungban Oil Company have sunk new wells, and the former has bought the areas of the Rangoon Refinery Company. Last year a new company was formed, called the Yenangyaung

Oil Company, and the British Burma Oil Company was formed towards the end of 1911 by the amalgamation of a number of small companies.

Notwithstanding all the appearance of prosperity which the earth-oil fields present up to now, it may be permitted to question whether they constitute a permanent source of wealth for the country. The British Government is not without apprehensions as to the future, for it admits that the old wells are falling off in production, and the new wells appear to necessarily imply a shorter life than the old. Moreover water has been found at a depth of eighteen hundred feet, and this constitutes a danger for the whole area. A special watchman has been appointed to guard against the dangers of fire and water. A look-out tower has been built, and all the wooden scaffolding has been replaced by iron. Government is taking special precautions to guard against inundation of the wells, which would be a terrible disaster. It is also very possible that the hopes built on the petroleum output will not be realized very soon, and the official Report of 1910-11 (page 44, paragraph 40) is not very optimistic.

IX. Mergui is famous for its fisheries, and Government puts the rights of fishing up to auction every year. Last season (1910-11) the sum paid into the Treasury was fairly large

on account of the number of bidders. The fisheries are for pearl oysters, mother-of-pearl shells, sea-slugs or *bêche-de-mer*, and the *Liparis vulgaris* or sea-snail. The successful bidder for the year 1911 paid nearly double the usual sum. He has, moreover, made a considerable profit, for in addition to an excess of twenty-five tons of the *Liparis*, or sea-snails, he has also been able to obtain higher prices. In 1909-10 the price of a ton was Rs. 382, while in 1911 he was able to obtain Rs. 419, and the wreath-shells of the *turbinidæ* or gasteropod species reached Rs. 302 the ton, instead of the Rs. 199 of the preceding year. This industry is in the hands of the Salôn (or sea-gipsies). They gather all these things to be sold in Siam, where sea-shells and slugs command a high price. On the other hand, the pearl oysters did not come up to the average. Oysters were scarce and the fishermen wanted higher prices for the pearls and defeated their own interests. The shallow waters where the divers used to operate have been cleaned out, and it has become necessary to try deeper water. As a consequence the Japanese have taken the place of the Manila men, who refuse to risk the great depths. During 1910-11 two pearls of very great value were found; one was estimated to be worth Rs. 40,000, the other Rs. 10,000.

X. During the last few years there have been cases of illness, in some cases resulting in death, caused, it is thought, by the Burma bean, whose scientific name is *Psophocarpus tetragonolobus*. It is now grown all over Burma and the Shan States, but it was introduced there from Goa and the Malabar coast. The question is whether this bean, grown so freely in Arakan and Burma, is really the cause of the poisoning.

According to the inquiries which I have made, it appears that the Burmese themselves eat nothing but the root, and sometimes the pods, after the fashion of French beans. They never eat the beans themselves when they have grown dry and hard to their full limit. This bean, which is small and reddish in colour, is a violent poison, and contains a large amount of prussic acid. The following are some notes on the method of cultivation and gathering these beans. Mr. J. H. Burkill, the well-known economical botanist to the Government of India, who devotes his special attention to the products of the country, has made a special study of this Burma bean. It is not cultivated in India, as a general thing, anywhere but in gardens. In Burma it is sown in the fields. The districts where it is most cultivated are Kyauksè, Mandalay, Meiktila, Yamèthin, Prome, and Henzada. There is a small amount in Möng Mit, a little in the

Upper Chindwin, and also in Katha. There is also a small amount cultivated in Hanthawaddy, but none whatever is found in Tharawaddy. A few Chinamen grow it in a small way near Rangoon, and in Bassein a few plots are planted in gardens. In Pegu also it is only found in garden cultivation. In Thatôn the Karens grow it all along the banks of the Salween. In the Shan States it is found everywhere—in Hsipaw and Hsumhsai, in Hsenwi and Kēngtawng. In fact, it is the Shan States that raise the best beans. The greatest quantities of them come from Kyaukkwet, and Kywethnapa, from Ngènin, Maymyo, Wetwin, and Htihlaing. They are called in Burmese *Pè saungsa* and *Pè Myit*. The Karen name is *Kaw bemya* (Burmese beans), and the Shan *To pong*.

In the Shan States the seed is sown at the beginning of June, when the rains begin. A rich and well-watered soil is chosen, or if the soil is not very fertile, its poverty is made up for by generous irrigation. In the Southern Shan States, over in Kēngtawng, the beans are only to be seen here and there, in no great quantity, whereas in the Northern Shan States they are a very common crop. They are usually found in the *taungyas*—that is to say, on the ground where the jungle has been cut down and burnt and the ashes of the leaves and branches have enriched



Photo] A "BOXING" MATCH. *Johannes & Co Mansalay*

the soil. When they are sown as a garden crop they are planted in regular lines and are left to themselves except for the stakes which are put in the ground to help them to climb. They grow well, and often reach a height of from nine to twelve feet. Sometimes the Shans eat the roots, but as a general rule they leave them to fruit, but these are plucked young and tender, and the fully developed beans are only used as seed. The harvest-time is in December or January. The beans are bigger than those grown in Burma, and the growers always keep their own seed. The Hsumhsai people export large quantities to Burma, and so do the Danus of the Maymyo neighbourhood. The beans are taken down to Mandalay and Kyauksè, where they command a price of seven and a half rupees, and sometimes even ten rupees the bushel basket, which is twice the rate of the local product.

The quality of the beans obviously depends on the choice of the seed and the care devoted to its cultivation, but it may nevertheless be said that the difference between the beans from the Shan States and those of Burma is due to the fact that, even if there is excessive rain in the Shan States, it does not lie on the ground as it does in the plains of Burma. Too much moisture is very bad for the crop, and for this reason rising grounds are always chosen to grow the

bean crop. It grows very well in a marl soil, but the bean is apt to grow too large and is not highly thought of. A sandy soil is thought to be the best.

The procedure in Burma is as follows: Towards the month of May or June water is let into the fields chosen for the sowing and the ground is then ploughed and harrowed thoroughly. In July and August the earth is heaped up into a series of ridges, between which there are trenches or gutters to allow air and water to circulate freely. Then the seeds are planted in little holes along the top of the ridge. It requires two baskets of seed to plant an acre of ground. The *Pègyi,* or big beans, are sown a month earlier than the *Pègalé*, or small beans. Immediately after the seed has been sown the fields are flooded, but the water is soon drawn off. The field is flooded in this way every now and again until harvest-time, according to the greater or less amount of rain that has fallen. It is very necessary to see that the ground does not become waterlogged, for, as has been noted above, excess of moisture tends to reduce the number of the tubers or roots. Weeding is carried out with very great care three or four times during the season. This is done by women, who are paid at the rate of two annas a day and their food. No stakes are used, and the beans

are allowed to stretch as they please all along the ground. From January to March, when the ground is dried up, the roots are dug out by labourers engaged for the purpose. They usually get two annas for every ten viss (thirty odd pounds) weight. The usual wage comes to an average of six annas a day for men and four annas for women. In addition to this each coolie has a right to a load of roots.

Up to now no insect pests have been discovered on the plant. Nevertheless, as a safeguard, it is as well to plant the beans on ground that has been used for other cultivation. Moreover it is found that if the beans are planted in virgin soil, the plants do not thrive so well, and the crop is not nearly so heavy. The cost per acre amounts to forty rupees ten annas, and the land tax has to be added to this, a matter of eight rupees the acre. The yield is fifteen hundred viss (over 4,500 lbs.), which command a price of sixty-seven and a half rupees gross, or about forty-five rupees the three thousand pounds, which gives an average profit of nineteen rupees (twenty-five shillings) the acre. After all the labour and the attention paid to the crop the profit does not seem so very great, if it were not that after the Goa beans crop sugar-cane is planted. It is a recognised fact that sugar-cane has a better yield by one half

if it is planted after the beans. This is the regular practice with the Singaing cultivators.

In the Mandalay neighbourhood the cultivation of the Goa bean is a more recent introduction. The local market price is ten rupees the hundred viss (three hundred pounds) in December, and only half this price in January. The green pods are sold at five rupees the hundred viss, and the seed at five rupees the basket. A basket of roots contains seven hundred viss of eatable material, and the outturn to the acre is fourteen hundred viss.

In Yamèthin and Pyinmana, since 1878 the Goa bean has been much planted. The seed is sown at the end of June or beginning of July, and the roots appear on the market in January or February. In the Prome, Henzada, Hanthawaddy, and Thatôn districts and in Northern Burma the bean is also cultivated and the outturn is much the same in all places.

The roots are looked upón as a very favourite dish among the Burmese, and there is a special kind of root, both as regards flavour and size, which every cultivator sets before him as an ideal, and tries to attain. The trade in Goa beans is considerable, and the railways take them everywhere in the country. The Kyauksè District sends them to Bhamo, Pegu, and Rangoon. The root is eaten raw without any

dressing. It is slightly sweet, as firm as a potato, and the flavour is not disagreeable. The pods are eaten green, but they are inferior to European *haricots verts*.

Great quantities of the dry bean are sent from Burma to Europe. No doubt in some of the consignments there have been some of the *Psophocarpus tetragonolobos*, and these probably were responsible for the cases of poisoning which so disquieted Europe, especially in the year 1906.

CHAPTER IX

TRADE

I. Money. II. Weights and measures. III. The Port of Rangoon. IV. Trade—Imports and exports. V. Shipping—Entries and clearances. VI. The regular shipping of Rangoon Port.

I. NOWADAYS the Indian rupee is the only money used in Rangoon. Formerly its value was liable to fluctuations which were often very damaging to trade, but now it has a fixed value. The Government of India has adopted the gold standard, and this standard is the British sovereign. A pound sterling is worth 15 rupees, and it is on this fixed value that all commercial dealings are transacted. The rupee itself is a silver coin which is worth 1 franc 60 centimes of French money. The sub-multiples are the half-rupee, or eight-anna piece (there are 16 annas in the rupee), the four-anna and the two-anna pieces; and below these, copper coins of the value of an anna and a quarter-anna.

In India the anna is also divided into pice, 12 to the anna; but pice are not favoured in Burma, where the cost of living is higher than in India, and there is absolutely nothing that one could buy for one pice. A lakh is 100,000 rupees, and a crore is 1,000,000 rupees.

As far as the official weights and measures are concerned, the Anglo-Indian unit of weight, the tola, is taken as the unit. The tola weighs 180 grains troy weight, which is equivalent to 11 $\frac{4}{6\frac{1}{2}}$ grammes, or 6 $\frac{9}{17}$ avoirdupois. Its multiples are:—

1 chittack = 5 tolas
1 seer = 16 chittacks
1 maund = 40 seers

Its sub-multiples, which are hardly used except by jewellers and goldsmiths, are the *masha*, the *ruttee*, and the *dhan*.

1 tola = 12 mashas
1 masha = 8 ruttees
1 ruttee = 4 dhans

When the English want to convert Indian weight into avoirdupois, they follow this system: They multiply the weight in seers by 72 and divide it by 35. The result is the weight in pounds avoirdupois. Or they multiply the weight in maunds by 36 and divide it by 49. The

result is the weight in hundredweights avoirdupois.

If, on the other hand, it is wanted to convert weight avoirdupois into Indian weight, one must multiply by 35 and divide by 72 in the first case, or multiply by 49 and divide it by 36 in the second. One ton is equivalent to 27¼ maunds.

It need hardly be said that in addition to these measures of weight which the Anglo-Indians use, wherever they may be, in India or Burma, there are weights and measures which are particular to each province. These cause endless complications, and it is astonishing that the Englishman, who usually is such a practical person, has not long ago made an effort to reform his system of weights and measures and money values so that it shall be uniform throughout the Empire.

The Burmese native weights are as follows :—

2 kinywe	= 1 ywegyi	= 3·90 grains	= 0·53 grammes
4 ywegyi	= 1 pègyi	= 15·98 „	= 1·06 „
2 pègyi	= 1 mugyi	= 31·96 „	= 2·12 „
2 mugyi	= 1 mat	= 63·91 „	= 4·24 „
4 mat or 8 mugyi or 10 mugalé	= 1 kyat (tical)	= 255·64 grains	= 16·96 grammes
100 kyat	= 1 beittha (viss)	= 3·652 lbs.	= 1·616 kilos
10 beiktha	= 1 kwet	= 26·52 „	
100 beiktha	= 1 acheintayà	= 365·2 „	

The measures of length used by the Burmese are as follows :—

4 grains of rice = 1 finger's breadth = 1 lettathit
6 „ = a thumb's „ = 1 letma
8 thit = 1 meik (the breadth of the hand with the thumb stretched out)
2 meik = 1 foot = 0·305 centimètres
12 thit = 1 twa (9 thumb's breadths)
2 twa = 1 daung (18 „)
4 daung = 1 lan = 6 feet
7 daung = 1 ta
500 ta = 1 ngayadwin = one English mile = 1609·33 mètres
1,000 ta = 1 daing

Measures of capacity :—

1 salè		= 1 pint	= 0·56 litre
4 salè	= 1 byi		
2 byi	= 1 sayut	= 1 gallon	= 4·54 litres
2 sayut	= 1 seik	= 2 gallons	
2 seik	= 1 gwè	= 4 „	
2 gwè	= 1 din	= 8 „	= 36·34 „

The din, or basket, is the unit of measure for the sale of grain. In former days it varied all over the country, but now it has been standardized on the model of the English bushel. Liquids in Burma are sold by weight and not by measure.

III. Rangoon Port is controlled by a body known as the Rangoon Port Trust, which was created in 1880. It is made up of the President of the Rangoon Municipality, the Commissioner

of Police, the Chief Port Officer, the head of the Customs, and of different engineers and officials appointed by the Burma Government. There are eleven members.

This Board has certain technical powers, but it follows the policy of Government on general questions.

The Port of Rangoon is one of the finest and best ports in Asia. It has grown up gradually and methodically with the help of successive loans. The first was raised in 1887, a total of Rs. 894,641 at 5 per cent.

In October, 1903, another loan of Rs. 1,000,000 was floated at 4½ per cent., followed, in October, 1904, by another for Rs. 2,000,000 at the same rate of interest. In November, 1905, there were three loans raised for the enlargement of the port, the anchoring of buoys, and the establishment of harbour lights, besides a variety of other improvements. The amounts were Rs. 1,300,000 and Rs. 1,430,000, all at 4 per cent.

This money has been laid out to good purpose, and now the largest ships can come alongside the wharves, and the service of buoys and the lighting are excellent, so that Rangoon Port, in the huge delta of the Irrawaddy, can stand comparison with the wealthiest ports in the world. The Burma railways have extended



BURMESE VILLAGE ON THE IRRAWADDY.

lines along the quays, so that freight can be loaded direct on to the ships without breaking bulk, while goods intended for the interior do not need to be stored. There is a scene of activity which contrasts, in a painful way to a Frenchman, with the sleepy port of Saigon.

IV. The best idea of the trade of the Port of Rangoon, and of the other less important ports of Burma, is to be got from the report of the fiscal year 1910-11, which is the last issued, for the fiscal year in the Indian Empire runs from April to April. The total value of imports from foreign countries amounted for this year to Rs. 107,528,143, and of the exports to Rs. 210,304,887. The coast trade imports came to Rs. 96,669,219, and the exports to Rs. 133,605,802.

The total value of the sea-borne trade was Rs. 28,500,000 more than the preceding year, and the total value of the foreign trade alone increased by 18·03 per cent. Cotton stuffs greatly increased among the imports, as well as clothes and garments in general. Machinery and metals and tobacco, on the other hand, declined in value. The export of rice was particularly good, and so were timber, hides of cattle, buffaloes and goats, lead, cutch, paraffin wax, and earth-oil. Earth-oil and timber were particularly largely exported.

The following table gives the share which each port had in the total trade of Burma :—

	Foreign Trade. Per cent.	Coast Trade Per cent.
Maulmein	4·81 ...	9·01
Akyab	2·15 ...	9·38
Bassein	5·28 ...	0·67
Tavoy	0·41 ...	1·53
Mergui	0·30 ...	1·24
Kyaukpyu	— ...	0·27
Victoria Point	0·08 ...	0·04
Sandoway	— ...	0·02
Rangoon	86·27 ...	77·84

Foreign Imports.

The following are the chief imports into the harbours of Burma, and chiefly into Rangoon, which, as appears from the table, monopolizes nearly all the trade of the province :—

Cotton in all its forms ; metals ; provisions of all kinds ; silk and manufactured silks ; sugar and sweetstuffs ; metalwork ; ironmongery articles ; cutlery ; machinery and mill plant ; clothing ; wines and spirits ; linen threads and all kinds of manufactured linen ; rolling stock for railways ; oils ; matches ; paper and pasteboard ; soap ; drugs ; medicines and narcotics ; salt ; earthenware and porcelain ; building materials ; chemicals ; carriages and trucks or their constituent parts ; paints and colours ; instruments of all kinds ; glass and glassware ;

wood and furniture; groceries; umbrellas and parasols; coal; books and paper; grain and pulses; fruit and vegetables; cord and rope; all manner of appliances for lawn-tennis, golf, foot-ball, and such-like games; parts of ships; leather and leather manufactured goods; tallow; arms and ammunition; office furniture; all kinds of wax; tar, pitch, and bitumen; candles; watches and clocks; tea; living animals; jewellery; gold and silverwork; coffee; and a variety of other goods not specified.

The more important imported goods will be discussed below. Meanwhile, some remarks may be made about articles of not so great a value.

There has been a great falling-off in the materials for the building of ships. This is due to the fact that in the two preceding years there had been large imports under this head, because of the building in Rangoon of quite a small flotilla of boats for the carriage of petroleum. The supply of these is now equal to all requirements, and so nothing more is imported. Japanese matches also are not imported in nearly such great quantities. This is due to the establishment in Rangoon of a match-factory which has worked satisfactorily. Printing-paper and letter-paper have increased in quantity, and most of this came from the United States. The United Kingdom supplied nearly all the earthenware,

porcelain, and soap, the demand for which goes on increasing. Bricks and tiles and other building material have also largely increased. These came from Great Britain, except cement, which is brought from Hongkong. Cardiff coal has fallen off in quantity owing to increased use of Bengal coal. Motor-cars of all kinds are beginning to be imported in considerable quantities from the United Kingdom.

Wines and Spirits.

	Rupees.
Beer of all kinds	1,494,000
Brandy	663,000
Gin	47,000
Rum	26,000
Whisky	499,000
Spirits of wine	109,000
Alcohol for scents	202,000
Methylated spirits of wine ...	13,000
Other kinds of alcohol	76,000
Champagne	80,000
Red and white wine	23,000
Port	69,000
Sherry	14,000
Other wines	50,000

The quantity of beer imported has fallen off greatly. Almost all the beer drunk in Burma comes from England or from Germany. England sent 86 per cent. and Germany 14 per cent. It is German beer which has suffered most, for it has fallen off to the extent of 15 per cent., whereas

English beer has declined by only 1 per cent. It is to be noted that ever since 1907-8 there has been a steady fall in the import of beers.

Wines and spirits have also been imported in smaller quantities, except champagne, which alone goes up. The total fall comes to 16 per cent. Brandy fell by 18 per cent., gin by 37 per cent., and rum by 50 per cent. Nevertheless, owing to the rise in prices, the value in rupees has fallen by no more than 4 per cent. The inferior brandies from Germany and Holland have fallen considerably, and of the total, 78 per cent. came from France.

Far less alcohol is drunk since the Customs duties were raised, from the 25th of February, 1910. This has made the retail price much heavier for the natives of the country. Instead of 7 rupees the gallon (4 litres), the duty is now 9 rupees 6 annas.

The export, country by country, is as follows :—

Great Britain : 87,408 gallons, 73,663 of which were whisky.
France : 68,015 gallons, of which 66,402 were brandy.
Germany : 16,061 gallons, of which 9,517 were German brandy.
Holland : 13,199 gallons, of which 7,537 were Dutch brandy.
Java : 21,911 gallons of rum.
Singapore : 850 gallons of different kinds of spirits.
Other countries : 14,024 gallons of various alcohols.

Provisions.

	Rupees.
Bacon and ham	136,000
Biscuits of all kinds	1,300,000
Butter	200,031
Tinned and bottled provisions	100,001
Cheese	72,000
Flour of various kinds for cooking and for sauces	712,000
Ordinary dried fish	314,000
Salted dried fish	1,364,000
Ngapi, or fish-paste	294,000
Fruit and vegetables, dried and salted ...	181,000
Lard	80,000
Condensed milk	1,277,000
Pickles, vinegars, sauces, mustards, and other condiments	92,000
Other provisions	200,000

Salted fish and plain dried fish fell off considerably because of the great quantities in stock. Biscuits, the sale of which is constantly increasing, mostly come from Great Britain. Butter is falling off as an import, due to the fact that India now makes tinned butter and sends it to the Burma market. Bombay and the Punjab are the principal producers.

The British Islands supply 40 per cent. of the total under this head, the Straits Settlements 36 per cent., and continental Europe 15 per cent. The chief coasting trade goods are Indian butter, salt and dried fish from the Straits Settlements, and glue from Bengal.

Salt.

	Rupees.
British Islands...	60,000
Germany	547,000
Spain	70,000
Aden	119,000
Egypt	286,000

Imports of salt have decreased, but the value has increased as the result of a general rise in prices. Imports from Aden, Spain, and Salif (in Turkey in Asia) have fallen, chiefly owing to questions of freight. Germany, which is able to send regular consignments by the steamers of the Hausa line, is an easy first, and continues to increase imports. The total sent from Germany is 54 per cent. of all the salt. Towards the end of the year an attempt was made to bring on the market a new kind of English salt, which is drier, with the idea of keeping a larger share of the import for the Mother Country. It is, however, difficult to say whether this new salt has appealed to the taste of the consumers.

The salt consumed during the year was 62,660 tons, instead of the 64,579 of the preceding year. The prices remained fairly firm. Aden got Rs. 69 for 3,000 lbs., and the prices for the other countries were: Spain and Salif, Rs. 80 and Rs. 73; England, Germany, and Port Said, Rs. 85, Rs. 84, and Rs. 87 respec-

tively. When the new shipments arrived in February, 1911, the prices receded to Rs. 81 for English salt and Rs. 80 for other varieties. At the end of the fiscal year (31st March, 1911) there were 11,207 tons in bond. Salt made in Burma only mounted up to 2,346 tons. It commanded the same price as the other kinds of salt besides British—namely, Rs. 80 the 3,000 lbs.

Sugar.

Sugar came from the following countries :—

	Rupees.
The British Islands	27,000
The Straits Settlements	35,000
Hongkong	152,000
Belgium	7,000
Austria-Hungary	10,000
Java	370,300

Refined sugar fell 11 per cent. in value, on account of the large surplus stocks from the preceding year. Almost all the sweets come from England.

Ironmongery and Cutlery.

These came in in the following proportions :—

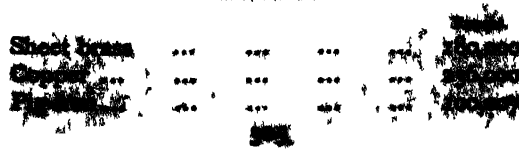
	Rupees.
Cutlery	280,000
Agricultural implements... ...	61,000
Other implements	598,000
Enamelled iron	638,000
Lamps	325,000
Sewing machines...	373,000
Various articles	2,277,000

There was an average in this branch of trade of more than Rs. 500,000 over the two preceding years. The British Islands, Austria, Germany, and the United States send most of these articles. Most of the cutlery comes from the British Islands. Belgium follows them close with Rs. 80,000. Enamelled iron and lamps come from Germany and Austria. Sewing-machines come from England (3,949) and Germany (2,022). The United States tried to place their sewing-machines on the Rangoon market, but did not sell more than 621. As a whole, the United Kingdom supplies 70 per cent. under this heading.

Machines of all Kinds.

There was a fall in these compared with the preceding year, but this was due to the fact that in 1909-10 the Port of Rangoon imported a number of hydraulic cranes, and the municipality had a large consignment of pumps. The average was fairly well maintained, and the mining companies imported a variety of machinery to a very considerable value.

Metals.



	Rupees.
Worked metal—	
Bar-iron...	469,000
Nails, screws, rivets, and bolts ...	94,000
Piping	1,755,000
Sheet-iron and plated metal	2,850,000
Other kinds of iron	700,014
Lead	59,000
Mercury...	5,000
Steel—	
Pillars, posts, and girders	200,063
Steel in sheets and plates	1,632,000
Various	2,284,000
Tin	34,000
Zinc	125,000
Various	123,000

Most of this came from Great Britain, Germany, Belgium, Austria-Hungary, and the United States.

Railway Stock.

This is almost entirely furnished by the British Islands (Rs. 2,780,000) and Belgium (Rs. 1,820,000). Burma purchases follow a steady routine, according to the need for the repair of old lines or the construction of new ones.

Tobacco.

The increase in the import duty on tobacco in the preceding year brought down the amount of tobacco from 1,312,678 lbs., with a value

of Rs. 2,086,000, to a total of only 270,037 lbs., with a value of Rs. 670,000. Government evidently intends to protect Burmese-grown tobacco, to the improvement of which a good deal of care and expenditure has been devoted. Cheap cigarettes and Chinese tobacco have suffered most from this increase of duty. A cigarette factory has been set up in Rangoon, but up to the present its productions have not found great favour among the Burmese population.

Tobacco manufactured in other countries has fallen from 440,452 lbs. to 37,280 lbs. Practically no leaf tobacco came in at all, for the Burmese tobacco harvest was a bumper one and exceeded that of the year before by 40 per cent.

Cotton Stuffs.

	Rupees.
Thread and yarns—	
From the United Kingdom ...	2,400,047
From other countries	177,000
Grey shirtings—	
From the United Kingdom ...	2,266,000
From other countries	180,000
White cotton sheeting—	
From the United Kingdom ...	6,266,000
From other countries	325,000
Cotton prints and dyed cotton—	
From the United Kingdom ...	9,135,000
From the Netherlands ...	3,516,000
From other countries	1,587,000

As far as can be made out from the returns, the great bulk of the cotton import trade is carried on by Great Britain, which is reasonable enough. The percentage is 81 of the total cotton imports of Burma. Holland continues to supply special dyed cottons, more particularly the *sarongs*, or waist-cloths, which are made specially for the Java trade. Japan has also begun importing articles of hosiery, and since their price is very low, it has already captured half the Rangoon market.

Silks.

	Rupees.
Raw silk—	
From the Straits Settlements ...	590,000
From Hongkong	444,000
From China	384,800
Manufactured silks—	
From the United Kingdom ...	28,000
From Japan	4,233,000
From the Straits Settlements ...	55,000
From other countries	78,000
Piece silk—	
From the United Kingdom ...	171,000
From other countries	181,000

The great predominance of Japan in the import of manufactured silks is noticeable. It was what was to be expected, and the example of Japan will certainly be followed by China when the trade is organized and peace and a regular

and wise Government have brought tranquillity to the country.

In this it seems to me there is an example to be followed in French Indo-China. The silk industry has made very considerable progress in Tongking, and the Administration and some of the merchants have begun to take an interest in the improvement of native methods, and the attempt to extend the output. We are past the period of experiments and trials nowadays. The different kinds of raw silk and silk yarns and tissues are easily produced by the natives, and they cost very little. French buyers are quite familiar with them and know their value, and the tissues, which could easily be made on the Japanese model, would certainly have a chance of competing with them in the surrounding countries. The silk industry is especially important in the countries where labour is abundant, as is the case in the Tongking Delta, and the Tongking climate is particularly suited to silk. Eggs can be hatched out during eight months out of the twelve, and each hatching takes no more than a matter of five-and-twenty days. It would, therefore, take very little time to have results, all the more because mulberry-leaves grow very fast after each plucking.

There are two silk factories: at Ninh-Binh and at Thai-Binh, but these are not enough. I know

that some traders send consignments to China and Singapore, but the amount is insignificant and only reaches a value of a million francs. Our fellow-countrymen will be very ill-advised if they neglect silk in Tongking. There is a wealth to be got there which only wants taking up.

Woollens.

	Rupees.
Carpets and blanketing	403,000
Piece goods	1,800,000
Shawls	273,000
Hosiery	158,000
Worsted and knitting worsted ...	111,000
Other woollen goods	84,000

The imports of woollen goods fell off because of the surplus stock which remained over from 1908 and 1909. These goods come mostly from the United Kingdom, from Germany, and Austria-Hungary. France has a certain share in the blanket trade, and imported to the value of Rs. 143,000 in the year 1910-11, but this was less than usual owing to the over-stocking alluded to.

Clothing, boots, blankets, millinery, handkerchiefs, bales of cloth, and everything connected with the tailoring trade increased considerably. This was due to the fact that the stocks of the

year before had all been sold off. Most of these things come from the United Kingdom.

Arms and ammunition were imported in small quantities only, as usual. The carrying of arms is strictly forbidden to natives, and Europeans who want to have even a smooth-bore shot-gun have to obtain a special permit from the police-office of their neighbourhood.

Exports to Foreign Parts.

The chief exports from Burma are: rice, husked and unhusked; mineral oil; leguminous vegetables; timber of all kinds; bran; uncured hides of all kinds; block lead; cotton; cutch; candles; forage, fodder and oilcake; jade; ground-nuts; tobacco; rubber; provisions of various kinds; spices; metals; horns of animals; lac, cotton-seed; precious stones and pearls.

The total value of the export trade amounts to Rs. 38,805,000, which is 30 per cent. higher than that of 1905-6, hitherto the highest figure.

Below appears a more detailed statement regarding the chief items of the export trade from Rangoon.

Mineral Oil.

None of this goes to foreign ports. All the

Burma earth-oil goes to India, where it is free from the two annas a gallon duty which is imposed on foreign petroleum. But a considerable quantity of candles made from earth-oil is exported.

	Rupees.
United Kingdom	1,925,000
Cape and Natal	414,000
Australasia...	723,000
Germany	278,000
Portuguese Africa	501,000
Japan	588,000
United States	232,000
Other countries	346,000

This is a proof that the development of the earth-oil wells is extending rapidly and that the refineries have plenty of work. The oil obtained in Burma for the present is all taken by India, but some of the companies have begun to send their brands to China and Japan and to the Dutch colonies.

Rice.

We have now come to the main export from Burma, the export which is the chief source of the wealth of the country. It may therefore be treated at some length.

Rice is exported from the four chief ports, Rangoon, Moulmein, Akyab, and Bassein, and

from some smaller ports. The following are the figures for them in detail :—

Rangoon	...	...	12,528,000
Maulmein	...	...	1,180,000
Bassein	...	...	1,890,000
Akyab ...	...	...	640,000
Other ports	...	...	700,000

Rice is exported to the United Kingdom, to South Africa, to Mauritius, the Straits Settlements, Ceylon, Hongkong, Australasia, and to all the British possessions; also to Russia, Sweden, Germany, Holland, Belgium, Austria-Hungary, Roumania, Turkey, Egypt, German East Africa, Java, Sumatra, the Philippines, China, Japan, South America, and a small amount to France.

The rice trade in Burma in 1911 was remarkable for the high prices obtained for paddy and for husked rice in all the producing centres of the province, as well as for the large quantities sent to Europe and to the Straits Settlements. The prohibition of the rice export from Saigon no doubt helped this. One of the chief features of the 1911 trade was the commencement of purchase by the buyers direct from the cultivators instead of through the medium of the brokers.

During the year a total of 2,403,525 tons

was exported from the province. Of this amount 1,210,208 tons went to Europe, 728,079 tons to the Straits Settlements, China, and Japan. The chief ports of export from Burma had the following figures: Rangoon, 793,787 tons for Europe and 204,363 tons for India; Akyab, 79,258 for Europe and 120,040 tons for India; Bassein, 215,428 tons and 30,274 tons respectively; and Maulmein, 127,725 tons and 22,804 tons. The rice shipped to the Straits and to America went from Rangoon.

Paddy begins to arrive in Rangoon about the beginning of December, but active work does not really begin before January. In 1911 the quality of the paddy was generally excellent, especially as regards the consignments from several places on the Prome line. The market opened at the rate of Rs. 103 the boatload and Rs. 100 the wagon-load, but it did not long remain at this figure. Towards the end of January the price had risen to Rs. 122 to Rs. 124 the boatload and Rs. 119 to Rs. 122 the wagon by the middle of February. However, prices went down a little till March, and then rose again about the middle of April, when they closed at Rs. 125 to Rs. 130 for the boat and Rs. 123 to Rs. 128 for the wagon. There were not many shipments in May, and a rise in price was the

result. Towards the end of August Rs. 160 to Rs. 105 were paid for the boat and Rs. 155 to Rs. 160 for the wagon load. Consignments in September were no doubt good for that time of the year, but they were not so good as might have been hoped for, and prices went on going up till they reached from Rs. 200 to Rs. 210.

The rate for husked rice in December, 1910, was Rs. 262 the hundred baskets of 75 lbs., and it remained at this till January, when it rose to Rs. 275. At the end of the month it reached Rs. 305. The beginning of February saw a fall in the price, but the anxiety of speculators, shown in open sales, made prices rise to Rs. 315 in the first week of the month, and at this price they remained to the end, except for a slight fall in the middle of the month. At the beginning of March prices fell to Rs. 295 and Rs. 297. Then buyers for the Straits came on the market and they went up to Rs. 302, and when speculators came in the middle of the month saw prices at Rs. 320, but by the last day of the month they had gone down again to Rs. 307 or Rs. 308.

But then, in consequence of the activity of speculators, consequent on a heavy demand for Japan and Java, the market made a jump to Rs. 330 on the 7th April. There were transactions at this exorbitant price. It was not,

however, kept up, and fell to Rs. 320 by the end of the month. A demand for the Straits and China kept the prices up, and when orders came from Japan the rate went up to Rs. 330 again at the beginning of June. There was little doing in July, and the rate stuck at Rs. 325 till the middle of the month. But on the 20th speculators began buying again, and there were transactions at the price of Rs. 345, which fell to Rs. 335 for want of buyers.

The chief feature of August was the phenomenal price which was reached by the bulls, and also because there were heavy shipments to be made to Java, China, and the Straits. The month began with Rs. 335, and this went up steadily till on the 21st it reached Rs. 430, and on the 8th September, after a slight fall, the price of Rs. 432 8 annas. Then the market began to take a series of fantastic leaps, on receipt of the news that all export was forbidden from Saigon and that Bangkok wanted rice. The rate went to Rs. 500 and Rs. 25 above that. Then when orders were executed prices fell until the speculators for a rise got to work again. The market in October opened at from Rs. 475 to Rs. 485, and the prices kept at this till the end of the month, when a big bulling firm, which wanted to hold the market, raised the prices at the end of October and

November to Rs. 580, the highest sum ever known on the Rangoon market.

Raw Cotton.

The exports from Burma were in 1910-11 :—

	Rupees.
United Kingdom	1,499,000
Germany	222,000
Austria-Hungary	103,000
Belgium	64,000
Italy	82,000
Japan	317,000
Spain	90,000
Other countries	104,000

These figures are much below former years, for the cotton harvest was a very bad one.

Cutch and ground-nuts received a great impetus. It is France that takes most of these exports from Burma.

Skins and Hides.

The export for 1910-11 was :—

	Rupees.
United Kingdom	501,000
The Straits Settlements	35,000
Canada	85,000
Austria-Hungary	3,000
Germany	305,000
Holland	228,000
France	141,600
Spain	463,000
Italy	1,581,000
Turkey in Europe	280,000
United States	246,000
Turkey in Asia	1,137,000
Other countries	86,000

It was a good year in this line, because of the high prices obtained in European countries and the Levant. Italy took most, chiefly the lighter kinds of hides. Turkey in Asia, on the other hand, preferred buffalo-hides.

Teak.

Export for 1910-11 :—

	Rupees.
United Kingdom	4,990,000
Ceylon	95,000
Natal and Cape Colony	377,000
Australia—Victoria	133,000
Germany	556,000
Portuguese Africa	112,000
Other countries	796,000

The year 1910-11, after two years of depression, showed good teak exports.

In 1909-10 the foreign export was 13,432 tons, and rose the following year to 43,357 tons. There was a great demand for shipbuilding and for railway construction. It was for railways that the export was made to South Africa and to Victoria. The export to the United Kingdom was naturally the largest, for London is the teak market for all the world. In spite of the great amount of teak exported, it must, unhappily, be said that there is not enough first-quality timber to lower the price on the market.

The teak market has not yet escaped from

the troublesome state it has been in for several years, but especially in the last two years, due to the scarcity of first-class timber in Siam and India. The forests still continue to turn out very little of the large timber which is wanted in Europe. Consequently the high price of first-class teak remains as it was. Dealings were therefore limited to purchases made specially for warships, for which teak is considered indispensable, and the high cost is not considered at all. Everywhere else, where lower-quality teak can be used, and therefore much cheaper logs can be taken, it is bought instead. It is for this reason that in many industries, and particularly for railway sleepers, Java teak is used. On the 1st January, 1912, the London docks stocked, in logs, 3,724 cargoes from Burma and Siam, and 777 from Java; in planks, 3,230 shiploads from Burma and Siam, and 671 from Java.

But it must not be lost sight of that in the 3,724 loads of logs from Burma and Siam there are more or less inferior logs, which are in no great demand, while first-quality timber, which is always wanted, becomes more and more scarce.

The United Kingdom and its colonies—the British Empire, in fact—has much the largest share of the export and import teak trade of

Burma. It imported to the value of Rs. 68,835,000, say 110,136,000 francs, and exported to the value of Rs. 77,782,000, or 124,451,200 francs. This is an example of the use of colonies to a nation which knows how to put a proper value on them and to profit by them.

Germany comes next with Rs. 5,177,000 for imports and Rs. 13,113,000 for exports.

Then France with Rs. 1,781,000 imports and Rs. 1,151,000 exports.

Austria-Hungary with Rs. 1,752,000 imports and Rs. 4,725,000 exports.

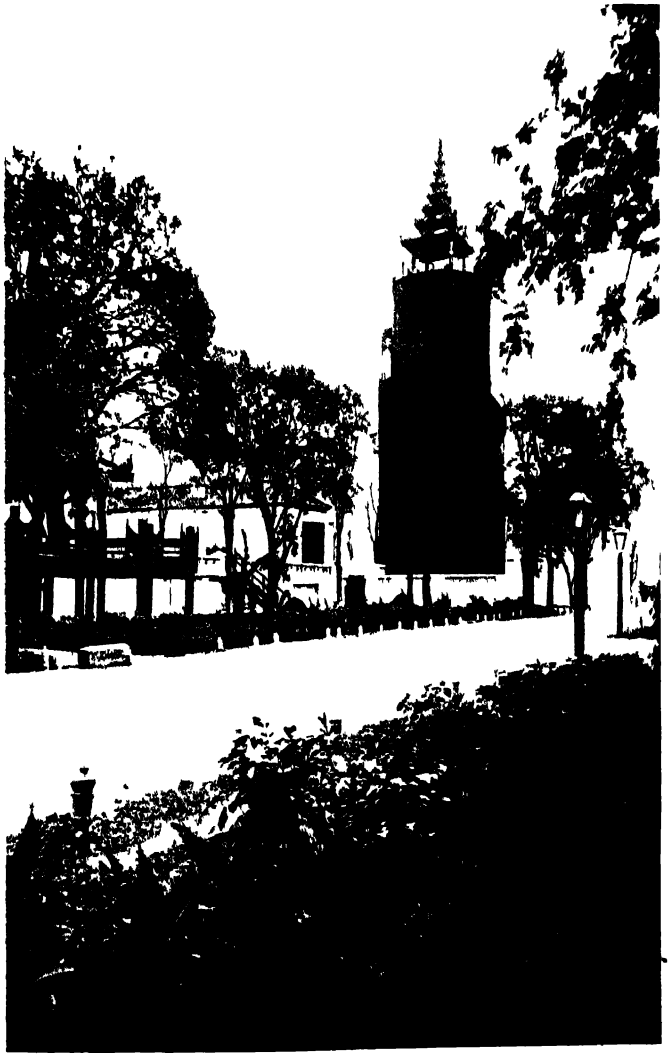
In Asia, Japan imports to the value of Rs. 6,219,000 into Burma and exports from it Rs. 6,893,000 worth.

The United States also have no inconsiderable trade, with Rs. 6,190,000 worth of imports, but exports only to the value of Rs. 713,000.

V. For the Province of Burma, in the year 1910-11 (between April 1st and April 1st) 267 steamers entered with cargoes and 154 in ballast; and there were 8 sailing-ships in ballast. The total burden was 1,059,621 tons.

The departures for the same period were 426 loaded steamers, 4 in ballast; and 41 loaded sailing-ships, 1 in ballast, with a total tonnage of 1,114,636 tons.

This total does not include the port of



THE 'WATER TOWER MANDALAY

Rangoon, but only the lesser ports. For Rangoon the following are the figures :—

Steamers entered—		
Loaded	216	
In ballast	91	
Sailing ships entered—		Tonnage, 852,858
Loaded	3	
In ballast	3	
Steamers departing—		
Loaded	326	
In ballast	4	
Sailing ships departing—		Tonnage, 940,824
Loaded	3	
In ballast	4	

VI. The regular sea traffic of the port of Rangoon implies a notice of the steamship companies, which have fixed days of arrival and departure for their steamers to fixed destinations, and this will complete the consideration of the trade of the port.

There are five steamship companies which carry on the regular navigation of the port. Four of them are English and one Dutch. The German North German Lloyd Company certainly has an arrangement with the British India Company at Penang, and with the Bibby Line at Colombo, for the transshipment of passengers to or from Rangoon, but its ships do not touch there.

1. The British India Steam Navigation Company.

2. The Bibby Line of steamers.

3. The Patrick Henderson.

4. The Java-Bengal Line.

5. The Asiatic Steam Navigation Company.

1. The British India Steam Navigation Company.

For Calcutta direct every Monday, Thursday, and Saturday;

For Kyaukpyu, Akyab, Chittagong, and Calcutta every Wednesday;

For Madras direct every Friday;

For the North Coromandel Coast every Saturday;

For Pinang and Singapore every Thursday;

For Maulmein every Monday, Wednesday, and Friday;

For Tavoy and Mergui direct every Wednesday.

The steamers sailing for Calcutta direct take freight for London, which is transshipped at Calcutta to steamers leaving for London every fifteen days.

2. The Bibby Line of steamers.

These leave every fifteen days from Liverpool by Marseilles, through Port Said, Colombo, and Rangoon. They are fine steamers of over 7,000 tons, with 5,000 horse-power, and are the best fitted out of all the steamers touching at Rangoon. Among them those last launched,

the *Worcestershire*, the *Herefordshire*, and the *Warwickshire*, are admirable seaboats in the worst weather. The voyage to Rangoon occupies twenty-three days from Marseilles, and I would advise all travellers to Burma to use this line. It has an agency in Marseilles at 8 Rue Beauveau.

3. The Patrick Henderson Line.

These sail from Liverpool to Port Said and Rangoon every fifteen days. The steamers are fast, but not so well fitted up as the Bibby boats. The passage money is considerably less.

4. The Java-Bengal Line.

This is a Dutch Company, which, with three steamers of about 2,000 tons burden, makes monthly journeys from Batavia to Calcutta, calling at Rangoon.

5. The Asiatic Steam Navigation Company, which has the following programme:—

Calcutta to Rangoon, calling at Chittagong;

Calcutta to Maulmein, calling at Rangoon;

Calcutta to Java, calling at Rangoon, Padang, Batavia, Samarang, and Surabaja;

Rangoon to Japan;

Rangoon to Bombay;

Calcutta to Port Blair, in the Andamans, once a month, calling at Rangoon.

CHAPTER X

THE TRIBUTARY STATES

I. Trade with China through the Shan States. II. Trade with the Northern Shan States. III. Trade with the Southern Shan States. IV. Trade with Siam.

I. BESIDES the seaborne trade which the Burma ports carry on with the other ports of the world, there is also the trans-frontier trade with the Chinese Province of Yün-nan, on the borders of the Shan States.

The three most important routes from Yün-nan towards Burma across the Shan States are :—

1. From Tali by T'êngyüeh to Bhamo ;

2. From Táli through Ssumao and Kēng-tung ;

3. From Yün-nanfu through Talang and Ssumao.

The first of these is much the most important, but in itself the town of T'êngyüeh takes only a small share of the trade. It is mostly a transit trade. T'êngyüeh is the first true Chinese settlement reached after coming from the Burma

frontier, and consequently is an important point for the study of all kinds of traffic. The road to Talifu is a very arduous one. After leaving T'êngyüeh, which stands at a height of 5,555 feet, it rises to 7,000 feet at Ching Tsai-tang and then falls to 4,500 feet to the bridge over the Shweli River. On the other side there is a climb to 8,000 feet to cross the Shweli-Salween watershed, a range called the Kaoli-kung, and then the road falls again abruptly to 2,600 feet at the bridge over the Salween. Then the path mounts again to 7,700 feet at the Leng Shui-ling, the Cold Water Pass, and then descends to the Yung Ch'ang plateau, with an altitude of about 5,600 feet. It crosses the Mè Kawng watershed at 7,700 feet again and falls to the level of that river at 4,000 feet. Again it mounts to 8,000 feet at Tienching and falls to 5,000 feet at Ch'utung. Even then it is not ended, for two mountain ranges of over 8,000 feet have to be crossed, one after the other, before one reaches Hsia Kuan, which is the port and market at the southern end of the Lake Êrh-hai, on which Tali stands.

After this description it is easy to understand why the trade is not very great and why interchange of goods is so difficult between Burma and this part of China.

From T'êngyüeh on to Tali-fu the population

is entirely Chinese, except in the tract where the Ming-chia or Ming-yen are found. On the other hand, the towns and villages in the plain on the other side of T'êngyüeh are inhabited by Shans, many of whom, it may be remarked, are Chinese half-breeds and wear Chinese dress. The hills are occupied by Kachin tribes, more or less uncivilized, and in all respects similar to the tribes who live on the hills round Yuenkiang and Talang, whom the Chinese call Han-pai. The British assert that the plateaux to the west of T'êngyüeh, as well as the three Shan States of Nantien, Kan-ngai, and Chanta, which make up the Taping River basin, have a population of three hundred thousand. This estimate seems to me rather exaggerated. It is, however, only the opinion of the engineers sent to carry out a railway survey, and therefore well may be erroneous.

The Taping River, at whose source T'êngyüeh stands, falls by a series of terraces to the Irrawaddy, which it enters above Bhamo, and it passes across the bed of the former lake, which now forms the States of Nantien and Kan-ngai. The Taping Valley forms a natural road to Bhamo. The old T'êngyüeh route, after leaving Bhamo, crosses the river near Myothit and goes on to the Nampaung, where it crosses the frontier, and then passes through Pengsi, Man-

yuen (or Manwaing), and Tapingkai. It crosses the river at several places, and, notably at Manchang, near Kan-ngai, a number of routes join together, all leading through Nantien to T'êngyüeh.

The new road, on the south bank of the Taping, was constructed in 1902-4, and passes by the Kulong hka and the Kuli hka, where it crosses the frontier; and passes by Mansein, Nawngchang-Kai, Kan-ngai, and so on to T'êngyüeh.

The third known route goes from Bhamo to Namhkam, in British territory, there crosses the Shweli, and goes on through the Shan-Chinese States of Mêng Mao, Chêfang, and Mangshih to the Chinese town of Lungling. From Lungling two routes may be followed leading to Yung-ch'ang-fu, where the main road to Tali is joined.

The Imperial, or Republican, Chinese Customs Service has "ports" on these three routes: at Pêngchien and Manyuen, on the old route; at Mangchien and Nawngchang, on the new route; and at Lungling, on the route of that name. There is also a Customs station at Kanlanchai, at the bridge over the Shweli; with the T'êngyüeh "port" the total number is seven. The three Shan-Chinese States of Hohsa, Lahsa, and Möng Wan (called Lungchuan by the Chinese),

on the Bhamo frontier, are so closed in by mountains that it is impossible to construct a road to get at them. Nothing can be done beyond the present footpaths, which are excessively bad. The roads from Myit Kyina, north of Bhamo, to T'êngyüeh are also very difficult going. The chief are :—

1. From Sadôn to T'êngyüeh, through the Sansi gorge, at a height of 9,200 feet, then a pass of 7,200 and another of 7,300 feet. It passes through Sinchi to T'êngyüeh.

2. From Sima to Mêng Tien, at an altitude of 7,300 feet, beyond which is a pass of 8,300 feet. This also passes through Sinchi to T'êngyüeh.

3. From Sima to Simapa, with a rise to 7,700 feet. Then a pass of 6,400 feet at Taping Kai, on the old road, and so on to T'êngyüeh. It is no more than eighty miles in an air-line, but the journey takes eight or nine days. From Bhamo to T'êngyüeh, a distance of 136 miles, the journey can be done in eight days. Apart from the section of the road built by Burma, extending to a score of miles or so, the roads are as bad as they well can be. They are, in fact, like all the other roads in Yün-nan, except the main roads leaving Yün-nan-fu for Tali, for Ssumao, Mêngtzu, and Chaotung, which are tolerable. The most difficult roads and the

highest mountains in Yün-nan are more particularly those between Tali and Bhamo. They traverse the upper valleys of the Mè Kawng, the Salween, and the Shweli.

The solution of the question seems to be pointed out to the English in the form of a railway, just as the French, on the Mêngtzu side, have endeavoured to improve the lines of penetration into Yün-nan by constructing the railway from Laokai onwards. T'êngyüeh is a mere transit mart, and the farther the railway goes into the interior the more traffic it will get and the more useful it will be. Given the imports, the exports, and the passenger traffic, there is a probability that a railway of a certain length will pay its way, according to the English expression. To extend it beyond T'êngyüeh is another matter, and is subject to a good many considerations. The chief of these is that the physical difficulties are so great that both the alignment and the cost are terrifying.

The caravans that use the roads from T'êngyüeh to Yungch'ang, and from T'êngyüeh to Bhamo, number among them between seven and eight thousand mules. The average charge is about forty-five hundredths of a tael a day for an animal carrying about 140 lbs. The length of a march is about fifty *li*, fifteen to sixteen miles. The cost of a ton comes

to a little over two shillings the mile, and it must be remembered that only certain kinds of goods are suited for the road, and that they must not be easily breakable, that they must not spoil on the way, and that they must be able to stand all the jolting and jarring of the road. Goods which might spoil, or which would only bring in a small profit, are completely shut out. Moreover the rains put an end to all traffic, and the rains last six months.

The imports from China to Burma in 1910-11 were :—

	Rupees.
Horses, ponies, and mules	91,150
Cattle	14,327
Sheep and goats	29,918
Other kinds of animals	251,593
Clothes	8,205
Vegetable fibre	41,638
Drugs and medicines	837
Oranges	69,513
Sweet potatoes	12,520
Various fruits	55,242
Skins of animals	246,274
Horns	22,002
Jewellery and precious stones	15,160
Copper	54,933
Musk	67,913
Opium	176,100
Tea	155,419
Silk	431,000
Marble and jade	18,750
Tobacco	4,650
Various articles	150,000

If some other imports are added to these, the grand total amounts to Rs. 3,841,165.

The exports to China mount up to Rs. 5,139,650. The most noticeable among them are cotton goods, cotton thread, dried and salted fish, and swallows' nests. Woollens and earth-oil also amount to a considerable sum: woollens, Rs. 146,800, and earth-oil products, Rs. 62,861. This is the summary of the traffic of Burma with South-western China, across the Shan States.

II. With the exception of Tawngpeng, the Northern Shan States are larger than those of the South, but Tawngpeng makes up for its want of size by the tea which it produces. Kēng-fūng, it is true, is almost twice as big as North Hsenwi, which is the next largest State, but it is very far away, and it is inhabited by a much greater number of useless hill tribes than any other State with the exception of Manglün, which, with its population of Tame Was, produces almost nothing at all. Tön Hsang, the octogenarian chief of Manglün, is a venerable relic of bygone days, very obstinate and incapable of understanding what progress means, but his subjects are not like him, and engage in a variety of enterprises. They carry rope to Tawngpeng and also lead, and bring back salt. Moreover, even the wilder Wa are giving up their savagery

and embarking in trade. There are, indeed, some of them who have developed a very rapid civilization, if one is to judge from one of them who was arrested not long ago for making false money.

The State revenues are proof enough in their growth of the trade which is being established. Thus Hsipaw already exceeds the sum of Rs. 600,000. Yawnghwe shows Rs. 270,500, while Tawngpeng and North Hsenwi have a slightly larger total. Kēngtūng, with its 12,000 square miles, returns only Rs. 127,000. The Northern Shan States are evidently more favoured than those of the South, which perhaps is due to the Maymyo-Lashio railway, but much more to the greater individual size of the domains. It is obvious that a State which counts its area by tens of square miles instead of by hundreds or thousands has no great chance of largely increasing its revenues. Moreover, in the smaller States of the south the construction of a bridge is a big undertaking, whereas in the north great attention is paid to the making of roads and the suppression of gambling, which cannot so easily be suppressed in the south because they make up a large item in the budget of the small States. Nevertheless some of the best State roads are in the south; and as for gambling, there is not much to choose between

the two charges where the influence of British officers is not felt.

Notwithstanding their prosperity, the Northern Shan States, or at any rate North Hsenwi, have not had complete peace. The *Sawbwa,* or chief, who is a survival of the military adventurers of the days of King Thibaw, has always retained the heavy hand. Last year the chief minister was said to have been discovered misusing the State funds. He was dismissed, treated with great cruelty, and was replaced by Hkun Ai, the Sawbwa's son. This young man, a year or two before, had married, at the same time, a mother and her daughter, which greatly shocked the people of the State. Their resentment was so great that he had to send away the mother, and he was naturally not held in great esteem. The Sawbwa, moreover, treated the ex-chief minister in such a way that Government was obliged to interfere with some sternness, and his decoration even was taken from him. The son, meanwhile, had conducted himself in such a way that he had to be exiled to Rangoon, where he lived on a pension supplied by the Kachin tribe revenues. When the Kachins heard that their contributions were used for this purpose they were so annoyed that in March, 1911, a band of them joined some Chinamen from the Shan Chinese State of Chêfang, which has a very

undesirable population, and attacked and burnt the village of a *duwa*, or chief, of the Maru clan. A party of military police had to be sent against them, and several of the raiders were killed. This was followed by disturbances in a good many other quarters, and as just at this time the Revolution broke out in China, there was a good deal of disorder, which probably will break out again. All these hill peoples, Shan, Kachin, and Wa, are ready to rise at a moment's notice, and the Wa in particular are always ready to seize any excuse for a good quarrel.

There was an increase in the exports from the Northern Shan States, and they reached a total of Rs. 1,032,660. Much of the rise was due to the lead-silver mine of the Burma Mines Company at Bawdwingyi, and also in some degree to teak, which rose to Rs. 267,166. The mining company has corrected the mistake it made in building too light a branch line from Manpwi to Bawdwin, and the results now are most promising. Last year the depth reached was over two thousand feet, and the amount of ore extracted was 2,687 tons, which gave 19 per cent. of lead and 7 per cent. of silver to the ton. Up to now 35,400 tons have been sent to the smelting works at Mandalay. The smelter has since been removed to the mines. The lead obtained amounted to 16,337 tons at £12 19s. the ton.

The silver totalled 81,685 ounces, at 2s. 2½d. the ounce. Without being over-sanguine, most excellent results may be expected from this enterprise. Through it the Mandalay-Lashio railway has realized a profit of Rs. 832,452, on a total of Rs. 9,338,029.

Imports from Burma to the Northern Shan States, on the contrary, fell off. The explanation of this may be the bad harvest of the preceding year, and also the decrease of trade with China on account of the cessation of opium cultivation. It must also be added that the Tongking railway to Yün-nan-fu has affected trade as far west as Tali-fu, and has deflected it to the capital and to Mêngtzu, and it is very clear that this will continue to be increasingly the case. All that Burma will be able to do will be to retain her sphere as far as Yungch'ang-fu.

Roads are being extended more and more in the Northern Shan States. The Hsipaw Sawbwa keeps up 235 miles of roads, which are gradually being macadamized, and 50 miles of mule tracks. On these roads he has to employ natives of India, for his own subjects dislike the work and are much more expensive. But coolies are beginning to arrive from China, and they will be cheaper than Indian labour. The Sawbwa has imported a steam-roller to Hsipaw, so that the streets of his capital are very well kept up.

The Tawngpeng Sawbwa also has spent much money on the Nansan road. On the whole the situation in the Northern Shan States is thoroughly satisfactory.

III. As to the Southern States the present great interest is the building of the railway. The work does not seem to have got on very fast. Construction has not got farther than the Meiktila district, and all the difficult portion is in front, and will only begin when the ascent of the foot-hills commences. The line, however, is definitely laid out, and the alignment reaches to Yawnghwe, which is to be the terminus for the present. It is hoped that the first locomotive will reach Kalaw towards the end of 1913, and that the whole line will be open to traffic in 1914. Kalaw will then be quickly reached, and the sanatorium of which there has been so much talk can easily be established. Houses have already been built there for the railway staff, and if the expenditure proposed is sanctioned, as one may assume that it will be, the work should go on fast. After two years' work ballast trains run no farther than the sixteenth mile, and to tell the truth, it cannot be said that much energy has been shown up to the present.

Nevertheless the trade of this part of the country has been very brisk, and the results are encouraging. The total of the imports and



Photo] [*Thannes & Co. Mandalay*

"MOUNT MERU" AT THE TAWADEINTHA FESTIVAL.

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exports with Burma for 1910-11 came to Rs. 17,812,472. This is the highest figure reached up to now, and only ten years ago the total of the Southern Shan States trade with Burma was only half this sum. It is made up as follows: imports into Burma, Rs. 7,668,954; exports from Burma, Rs. 10,143,518. The Government cart-road is chiefly responsible for this improvement in trade, more especially because Government officers have not insisted on the rule which provides that the tyres of the cart-wheels shall be of a certain width. The narrow wheels obviously cut up the roads, but it is very difficult to force a definite pattern of wheel on the Shans. They have no communication with Rangoon, and wheels are not readily got. It will be time enough to enforce the regulation when the railway is open and purchases can be made. The imports of potatoes from the Shan States have increased considerably, and rose to a sum of over Rs. 250,000. It is certain that when the railway is opened the crops will be quickly delivered in large quantities in the markets of the plains, and that the Marseilles potato trade will come to an end. The Shan States are equal to supplying any demand, and there will no longer be any cultivators watching their potatoes rot for want of transport to Thazi.

The introduction of sanitary rules for the protection of cattle has had excellent results, as is shown by the number of horned cattle exported —12,231 head, with a value of Rs. 785,654.

Oranges were represented by Rs. 114,000, and this item is sure to increase, for Shans and Karens plant orange-gardens wherever they are possible.

Only Rs. 14,000 worth of raw cotton was imported into Burma. Wheat improved, and a good deal was sold among the coolies employed on railway construction at Thazi. This is worth noting, for it seems probable that wheat production will develop to supply these new customers and may find a market in Rangoon and Mandalay.

The decline in raw silk and in cotton thread is the most noteworthy fact in the exports from Burma to the Southern Shan States. This is most unfortunate, but it is inevitable. Before long we shall see Shan women wearing blouses made in Germany.

The total trade of the Southern Shan States is obviously not all included in the figures given above. This is due to the fact that a considerable proportion makes its way to Hsipaw station on the Mandalay-Lashio Railway. When the Thazi-Yawnghwe railway is finished, this will no longer be the case, but meanwhile all the Kēng-

tūng trade, for example, makes for Hsipaw through Kehsi Mansam, Möng Nawng, and Laihka.

The intelligent and energetic Sawbwa of Yawnghwe, in anticipation of the coming opening of the railway, is developing the industrial spirit among his people. He has experimented with preserved fruits, cigarettes, matchboxes in niello-work on silver, an art no doubt introduced into the country by some Chinaman from Shihping. As to public works, they consist chiefly in roads, and the roads can hardly be made very satisfactory for want of means. Hammers and steam-rollers are not easily imported into the mountains, and probably it will be some time yet before there can be all-weather roads in these States.

IV. Trans-frontier trade between Burma and Siam for the year 1910-11 reached a total of Rs. 3,510,746 for imports from North Siam into Burma, and Rs. 1,051,449 for those from Southern Siam.

The amount exported to North Siam reached a total value of Rs. 3,081,421, and to the southerly portion a value of Rs. 816,886.

The principal imports are: leather, mats, copper, iron, lead, musk, opium, orpiment, salt fish, dried fish, tea, salt, various kinds of grain, raw silk, spices, areca-nut, stone and marble,

refined sugar, tobacco, teak, and bamboo. Teak alone is the most valuable import, and amounted in value to Rs. 1,376,305 for the south and Rs. 988,024 for the north, or a grand total of Rs. 2,164,329.

Among the exports to North Siam are: ponies, elephants, lime, rattan, rope, cotton in all its forms, drugs and medicines, dyeing stuff, apples, potatoes, grain, wheat, sticklac, hides, spirits, earth-oil, paper, salt and dried fish, raw silk, spices, betel, sugar, tea, tobacco, and woollens.

To South Siam the exports are: horned cattle, goats, elephants, clothing, arms and ammunition, bricks and tiles, coal, rope, cotton of all kinds, drugs and medicines, dyeing materials, oranges, potatoes, rice and grain, skins and hides, various metals, earth-oil, opium, and, in fact, practically the same things as go to the north.

CHAPTER XI

FRENCH TRADE WITH BURMA

I. French trade in Burma. II. Tinned foods. III. Tinned fish. IV. Tinned fruit. V. Condiments and spices. VI. Wine and champagne. VII. Brandy.

I. WITH the help of the statistics published by the Local Government, notwithstanding that they are not always very precise, I have been able to give a fairly complete view of the general trade between France and Burma to the ports of Rangoon, Maulmein, and Akyab. It is hardly necessary to say that Rangoon alone takes, one might almost say, the whole of the trade, as it does the trade of all other countries.

For the official year 1910-11 the total imports from France to Burma amounted to a value of Rs. 1,781,000 (in 1905-6 it was Rs. 2,119,868, and in 1909-10 it was Rs. 2,167,000), a considerable falling off from preceding years. The exports from Burma to France had a value of Rs. 1,151,000, which

showed a rise (1909-10 the value was Rs. 611,000).

The chief articles we import are: brandy, liqueurs, perfumes and perfumed alcohol, champagne, red and white wines, port and sherry, butter, provisions in tins and bottles, cheese, farinaceous foods, fruits, vegetables, salt and dried preserves, condensed milk, vinegar, gherkins, articles preserved in vinegar, sweets and bonbons, cutlery and ironmongery ware, lamps, enamelled iron, drugs, suet, all kinds of cotton goods, hosiery, haberdashery, millinery, piece silk, silk and cotton, carpets and woollen blankets, all manner of dressing materials, boots and shoes, hats, tiles, bricks and cement, and ornamental glassware.

Although it is still in its infancy, I am convinced that French trade with Burma could be considerably developed. But if this is to be done, it should be taken in hand by French firms interested in pushing French manufactures. It is quite certain that the English commission agents who buy French goods from London to send them to Burma only buy them when it is necessary, and are always ready to substitute British goods whenever they can. It is an obvious principle that if you want to do good business you must do it yourself. We French people do not manage our own affairs in Burma.

It is foreigners, and particularly the English, who do it for us. I have often noted this state of things in my long experience of the East, and I shall not fail to recur to it. We could easily double or treble our sales in Burma, and before very long might take a creditable place in the market, if only our manufacturers and merchants would themselves take an interest in the matter. In order to do this there should be a French Society in Rangoon, representing French houses and supplying the things that are suited to the Burma trade. This is the method which the Germans and the Belgians have adopted, and they have had their reward in Rangoon, as they had in Singapore, in Hong-kong, and in Shanghai. In presence of the deadly rivalry which exists in all parts of the world, isolation means almost certain defeat. Nothing but combination can struggle and succeed.

Why should not our manufacturers and our dealers in clothes, haberdashery, millinery, cotton-stuffs, glassware, wines, liqueurs, brandy, provisions and preserves of all kinds, silk, woollen, cycle and motor-car merchants, bedding, porcelain, locksmith's work and ironmongery craftsmen, and so on—why should they not form a society and establish a great French emporium in Rangoon, which would gather together all

the French products likely to command a sale and to start novelties? What we want is the spirit of enterprise, and it is not only here that we lack it. With a little initiative, patience, and united effort we ourselves would carry on our own business in Rangoon. Even now we do a trade to the value of Rs. 3,000,000 in Rangoon, and there is not a single French merchant there. From this fact alone it is obvious that if there were only one single firm there, a firm which would import all manner of goods, it would be certain of success.

Among the exports from Burma to France are: rice, dyeing woods, hides, horns, teak, all of them imported into France by foreign houses and carried in foreign ships. This is nothing compared with what could be done by a French house settled in Rangoon. The products of Burma which are absorbed or are manufactured in France are numerous. Besides rice, horns, and hides, I may mention cotton, copra, cutch, or *catechu*, peas and beans, spices of all kinds, dyeing and tanning materials, paraffin wax, and besides these, earth-nuts, birds' feathers, ivory, rattan, rubber, jade, precious stones, gum-lac, essential oils for perfumery, mother-of-pearl shells, tallow and vegetable wax, jute and fibre, and much more.

I would add that in order to do business in

Rangoon it is absolutely imperative to have a good knowledge of English, to understand the Indian coinage, which is in use here—that is to say, rupees and annas—to know the English weights and measures, as well as those of the natives. All our merchants write in French, give the prices in francs, and make their proposals in French. Nobody takes the trouble to read their letters, for nobody here understands French, which is a language of fashion, spoken only by a few society ladies.

As a comparison I will give the German trade figures :—

	Rupees.
Imports	5,177,000
Exports	13,262,000

Our French firms are sometimes amazing in their ignorance. Thus at the time when I was Consul in Rangoon a big Marseilles oil and soap establishment wrote to ask me if there was a direct line of steamers from Marseilles to Rangoon. It was absolutely ignorant of the fact that Rangoon communicates direct with Marseilles by the Bibby Line steamers, and yet it was a Marseilles firm and the Bibby Line is well known.

II. Tinned provisions, especially vegetables and fruit, will find a market all over Burma from Rangoon. European vegetables and fruits

do not grow in the plain country, and they are eaten tinned. Our chief rivals are the United Kingdom, the United States, and Australia. The imports total a value of Rs. 7,832,000. Under the general head of provisions other than wines and liqueurs, sugar, and coffee, France appears on the list for a paltry sum of between forty-five and fifty thousand rupees.

(*a*) There are no exports under the head tinned provisions, except native foodstuffs for India, such as salt fish and condiments.

(*b*) Hitherto the Medical Board has made no special rules as to tinned foods. At the time of the Chicago scandals all American canned meats were banned.

(*c*) The best way of extending the use of French preserved foods would certainly be to send commercial travellers, but also, and more particularly, the establishment of a French firm which would carry on wholesale and retail business. It should have an agent of its own, who would go from Rangoon to France and back every six months, and would thus be able to keep an eye on the sales and on the goods in demand, to see to their packing, and ensure that everything should be done in France to suit the wants of the customers. It is imperative that all the staff should speak English, and that one of them should know Burmese and another Hin-

dustani. There would have to be prospectuses, prices current, and lists in English and in Burmese, and these should be distributed broadcast so as to create a demand. The prices should be stated in rupees.

(*d*) In the case of firms which consign direct to agents in Rangoon the prices should be free on board to that port, stated either in rupees or in pounds sterling, fifteen rupees to the pound. There are a great many large and small dealers in Rangoon who stock French goods which have come to them through middle-men in London. There are very few of our imports that come direct.

(*e*) Tinned meats are supplied by English and American firms, and in small quantities. This branch of preserved provisions is not in great demand in Burma, where cattle are abundant. The things that sell well are *pâtés de foies gras*, hams, and bacon. Pâtés in earthenware jars are preferred to those in tins. Hams and bacon come from England and America, and there is not much chance of supplanting them.

(*f*) We might greatly extend our imports of tinned vegetables. There is no competition locally, and foreign rivalry would be restricted to England, but with a little skill this could be completely overcome, for I am satisfied that our tinned vegetables are highly thought of.

(*g*) It is the best plan to send everything possible in bottles. The customer can see what he is buying, and they appeal more to the eye. The French labels should be left on the bottles, but it might be well to add in English the name of the article under the French name. Thus :—

Petits pois.	*Haricots verts.*
Peas.	French beans.

(*h*) Bottles of one or two pounds weight are the most usual sizes. The method of opening preferred is a key twisting off the strip of metal.

(*i*) Every bottle should be carefully packed in straw to prevent breakage. As to the number of bottles or tins in each case, the best plan is to consult the customer and pack according to his requirements. It is advisable to send supplies in small quantities and at frequent intervals on account of the dampness and heat of the country.

III. (*a*) Preserved tunny-fish, sardines, anchovies, small mackerel in oil, herrings, and the like, would find a market in Rangoon and in Burma.

(*b*) In such supplies we should have to compete with America, but America has, one might almost say, the monopoly of the tinned salmon and lobster trade.

(*c*) The usual method of packing them is in

tins, but I have noted a new fashion, little glass jars opening with a screw key, sent by the Paris firm of Billet (factory at Sables d'Olonne). This method of packing attracts customers, who can see what they are buying.

(*d*) The tins on sale in the Rangoon market are of the same size and shape as the French; no alteration in model is therefore necessary, but keys are preferable to knife tin-openers.

(*e*) No particular precautions have to be taken in packing except where glass is concerned. As to the size of the boxes and the number of fishes to be packed in each, the buyer should be consulted, for he knows better than anybody what is most likely to sell.

(*f*) Stock should be renewed often and in small instalments because of the climate.

IV. (*a*) Preserved fruits, such as jams, fruits in syrup, dried fruits, prunes, fruit in brandy, command a sale in Rangoon and all over Burma.

(*b*) There is no local competition. As to foreign competition, it is with England for the jams and with America and Australia for the preserved fruit.

(*c*) The Americans and Australians send their goods in tins. The French prefer bottles, if one is to judge from the exports of some Bordeaux firms. This is no doubt more attractive, but it

costs more. The Australians sell their jams particularly cheap and import large quantities. The endeavour should therefore be made to supply the fruit packed in bottles at the same price as in tins. The French labels might be retained, with the English name added. Both tins and bottles weigh one or two pounds.

(*d*) The bottles must be well packed, and the number in each case should be determined in consultation with the customers.

(*e*) Consignments should be sent frequently and in small quantities, because of the climate. French preserved fruits are very popular, and great quantities are consumed, especially in December and January. Austria enters into competition with us, but does not equal us in quality.

V. (*a*) There is a possible sale for sauces and groceries, but it is not a very large field.

(*b*) The trade now is more particularly English, and Messrs. Crosse and Blackwell, of London, have nearly a monopoly of it. Nevertheless, in some shops I have seen bottles from Bornibus, Price, and Louit Frères.

(*c*) Such goods are always sent in bottles or earthenware pots.

(*d*) French brands are known and accepted. There is no need to change them.

(*e*) Articles preserved in vinegar and spices

keep longer, so that the consignments can be larger and need not be sent so often. Nevertheless, it must never be forgotten that the climate is warm and damp, and no goods, no matter of what kind, should be kept too long in store.

(*f*) Except for tinned meats, which are not much eaten in Burma, we might have quite good sales for all the other kinds of provisions. At the present time all French supplies—and there is quite a considerable quantity of them—come through London and through City agents. It seems to me, therefore, that it would be advantageous to establish a house in Rangoon to import direct from Marseilles by the Bibby Line. Prices would thus be cheaper than when they come through London and through an agent's hands, and they might enter into rivalry with those of England and the United States, all the more because French provisions have quite a favourable name in Burma.

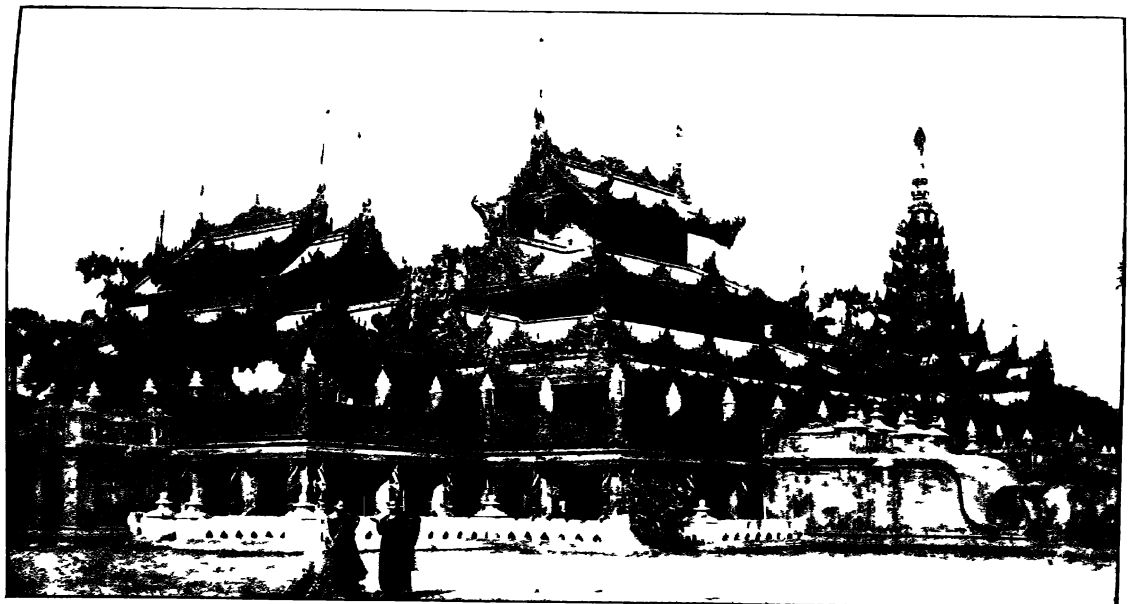
VI. Wines are among the chief products that France sends abroad. It therefore seems well to give a summary of the wine trade in Rangoon and Burma generally, so that French merchants may understand the situation.

In the first place, it may be definitely said that Burma is not a field for our wines. The Englishman drinks whisky, beer, and stout, and

the wines he imports—chiefly port and sherry—all come through London. Red and white table wines, therefore, are not in demand. There remain the vintage wines, and these are mostly imported by the hotels and regimental messes, and also to some extent by the clubs and by wealthy private individuals. Customs statistics give an average return of from 25,000 to 30,000 francs (about £1,000) a year for wine duties. The best year was 1905-6, when the total came to Rs. 27,231, and that was the year the Prince of Wales (now King George V.) came to Burma. His visit helped to raise the sales of high-class wines.

In addition to the fact that the English do not drink much wine, except, now and then, after-dinner wines, it has also to be noted that France has rivals in the wines of Australia, California, and Hungary. Thus the Strand Hotel, the chief hotel in Rangoon, imports Hungarian "Bordeaux and Burgundy" wines. There are also the wines of Italy, Chianti, Barollo, and Barbera to compete with us on the Rangoon market, chiefly because there is an Italian firm, Messrs. Chiesa Cie., which imports direct.

As far as champagne is concerned, Pommery and Greno is the favourite brand; one might say it is almost the only one drunk in all houses, clubs, and hotels. The cheaper



A MONASTERY

Face Mandalay

To face p 352

Ayala is also drunk in fair quantities. Wines, in fact, are the drink of the well-to-do, and there is not much trade to be hoped for in this direction.

The Customs duty for red and white wine in cask is a rupee the gallon, or six bottles. For champagne the rate is 2 rupees 8 annas the half-dozen bottles.

I would not say that nothing can be done to improve the trade. It might be tried, but if so there would have to be a French firm in Rangoon which would put different brands on the market, some of them high-priced, some of them cheap. This is what the Italian Chiesa does. Thus a cheaper brand of champagne than Pommery and Greno might be tried. It is too costly for shallow purses. The champagne should be dry and extra-dry, for the Englishman will not drink sweet champagne. As long as our wines are imported by foreign houses, the market will remain stationary, for no one is interested in pushing them or making them known.

VII. Seventy-five per cent. of the brandy that comes to Burma is French. This year (1910-11) the amount imported was 67,269 gallons, with a value of Rs. 613,440. This is about the annual average. Germany and Holland also appear as importers of brandy to the value of

Rs. 20,000 and Rs. 15,000 respectively. This is cheap and fraudulent brandy, with false labels giving the names of Hennessy, Martell, and other well-known French trade marks. I collected a number of these labels and sent them to the Cognac Chamber of Commerce, but I never had an answer from them.

As a matter of fact, since the Customs duties are very high, bad brandies cannot easily support them, and good French brandy should profit correspondingly. But it must be admitted that the good days for brandy in the Indian Empire are gone. Formerly the Anglo-Indian drank nothing but brandy and soda. In those days France did a considerable brandy trade with the chief ports of India and with Rangoon. Nowadays it is whisky and soda that is drunk, and it has completely displaced brandy.

CHAPTER XII

INDUSTRIES

I. Native industries—Cotton and silk weaving. II. Dyeing. III. Salt-boiling IV. Manufacture of *ngapi*, or salted fish. V. Pottery. VI. Lac. VII. Gilt boxes. VIII. Bronze, iron, and wood carving, etc. IX. European industries and manufactures in Burma.

I. NONE of the native industries is of great importance, and mechanical production is, so to say, in its infancy. Cotton and silk weaving are carried on in almost every house, although this is not so much the case in the big towns as in the villages. Nevertheless one can hardly take a walk without noticing or hearing the clack of weaving. The loom is a very simple affair, and of a model that has done nothing very great. It is not unlike the old looms that used to be worked in Europe. The threads of the warp are alternately raised and lowered by pedals. The articles woven, whether of cotton or silk, are chiefly *paso*, or waistcloths, of different colours worn by the men, or *tamein*, a kind of petti-

coat, worn by the women. Pieces of silk or cotton for various family uses are also woven. In former days all the cotton cloth was made with cotton grown in the country, but since improved communications have introduced foreign cotton, and since the establishment of markets in all the great centres, and since, perhaps, cotton-fields have more and more given place to rice-fields in Burma, imported cotton has almost universally come into use, and it has become quite the custom to buy European-made cloth.

Silk has also been imported from abroad in increasing quantities, but nevertheless there are a good many silk-weaving establishments, notably at Prome and even more so in Mandalay. Government gives its support to those who wish to promote the silk production of the country. The designs are usually in striking colours, and the patterns are often very complicated, and imply the use at times of twenty or more shuttles. A *paso* of this kind sometimes costs Rs. 300 (£20). The design is ordinarily in lines or zigzags of different colours, in which yellow, green, and red predominate. The native-woven articles are coarse, but they are strong, and they last longer than the imported silks. It is true that the latter are cheaper and attract the eye more, and are therefore sought after by those who want

to make a show without spending very much. The best garments are made of imported silk, which is tougher than the native thread. The weavers usually buy raw silk, separate the threads, and make it up into skeins with spinning wheels. The skeins are then boiled with soap, dyed the colour required, and then used in the loom. A viss of silk, a little over three pounds, will make three men's waistcloths. The cotton-ginning machine is very simple and primitive. There are four posts, a bamboo pedal, a wheel, and two cylinders, placed one beside the other, the upper one of thin iron, the lower of wood and a little larger in diameter. The bamboo pedal is connected with the wheel by a string, and the wooden cylinder has a knob for the hand on the side opposite the wheel. The spinner sits facing the wheel and works the pedal with one foot, which turns the wheel rapidly and after it the iron cylinder. With one hand he turns the wooden cylinder by means of the knob, and with the other he places the cotton in small quantities between the two cylinders. The cotton passes through, but the seeds remain behind. The two cylinders move in opposite directions. With this simple machine twelve viss—about forty pounds—of cotton can be cleaned in the day.

The Shans and the hill tribes like dark-

coloured designs, and the Shans of Hsenwi State make cotton cloths with very singular patterns, but all dark in colour. The Kachins also have a sombre groundwork for their cloths, usually a black-blue, with longitudinal or contorted lines of different colours, but always very complicated. The Lü Shans, on the other hand, those who live on the other side of the Salween, like the Lao tribes who live in French territory, prefer very bright colours, often threaded with gold.

II. Dyeing is an art with the Burmese, and also among the Shans and Karens. The colours are all very pure and attractive to the eye, and the way in which the weavers combine them forms the most harmonious results. Unfortunately, however, the native colours are being gradually displaced by the horrible aniline dyes of European manufacture, which are very far from producing the soft and artistic effects of the natural dyes of the country. But on the other hand, the Burman, who is constitutionally averse to work, very readily gives up the complicated methods of his ancestors, when he can buy the necessary dye cheaply in the nearest market. Thus in Mandalay, which remains the chief silk-producing district of Burma, aniline dyes have taken the place of all the national colours except three or four. These remaining

dyes are arnotto (*Brixa orellana*) and wild arnotto (*Rotlera tinctoria*), which come from the Shan States, turmeric, and sticklac.

Dyeing with the old national tints is still carried on in out-of-the-way places, away from the beaten track. The everyday dress of the peasant is woven by his wife and daughters with the country cotton and dyed with the herbals of the jungle, but the festival day dress is made of stuff bought in the bazaar, cheap, garish, and trashy.

As is noted above, the chief colours are yellow, red, and green, and to these may be added light blue and white, except among the Shans and Karens and the Chin and Kachin hillmen, who substitute dark blue and black.

To fix the whiteness of the thread it is boiled in a mordant, and then beaten on a stone or a wooden plank. If it is to be dyed yellow it is plunged in a decoction of saffron and stirred about for half an hour. Then it is washed several times in cold water.

Green is got by plunging the thread in a boiling decoction of the leaves and twigs of the creeper called *Mai-nwe* (*Marsdemia tinctoria*). If orange is wanted the small seeds of the *thiden* (*Bixa orellana,* arnotto) are rubbed in the palm of the hand in a bucket of cold water. The seeds are taken out and the thread is steeped in it and then boiled.

For red, sticklac is used in a powdered form. The powder is boiled in water in which the thread is steeped.

In some parts of the country *Diosporis mollis*, *Terminalia chebula*, and *Iatropha curcas* are used to get black and *Ruellia indigofera*, *Indigofera tinctoria*, and a kind of wild indigo for a blue dye.

The fruit of the tamarind, the wood of the *Adenanthera pavona* and *Melanorrhœa usitatissima* give a red dye, and so does the well-known Sapan wood (*Cæsalpinia sappan*) which is found in Tavoy. The Southern Karens use the *Rotleria tinctoria* and the roots of the morinda.

Cardamoms give a yellow dye, and when mixed with other ingredients, several tints of red. Different colours of yellow are got from the wood of the jack-tree (*Artocarpus integrifolia*), from the root of a *psychotria*, from the bark of a kind of *garcinia*, from the flowers of the *Cutea*, and the leaves of the memecylon.

Indigo is used more particularly by the Shans, who have two varieties of it. The plant seems to flourish especially on high ground, and does not stand great heat. For this reason it is grown in shady places in the plains of Burma, and it thrives wonderfully on the Shan and Karen Hills. It is only used for dyeing cotton-stuffs.



Ph t] [*Johnson Co Manhatan*

A WIII

Sticklac is found in various places in the Shan States, but it is not much propagated artificially except among the Red Karens, though the Shans of Yawnghwe State graft it on *arhar dhal*. Everywhere else, when a tree is attacked or colonized by the insects, the people are satisfied with collecting the lac that has been deposited. The Karen-ni, on the other hand, develop and encourage the deposit. The scale insects are, as it were, grafted on the thickest branches of the trees which experience has shown are the most favoured by them. The kinds most commonly chosen are those which the Burmese call the *pyauk*, the *gyo*, and certain varieties of the fig or banyan species. The insects, to all appearance, remain quiet and sleepy for a month or two, but when the rains come on they become busy and cover the small branches of the tree with their deposit to a thickness of '05 or thereabouts of an inch. This lac takes the form of little brownish cells, in which the creatures live. The branches are cut off at the end of the rains, but some are always left to carry on the species next year on new shoots, and also to supply the brood-lac for grafting on other trees.

The lopped-off branches are laid in the sun, and since the branches are dead the insects are not long of dying for want of nourishment too.

When the branches are quite dry they are pounded in a wooden mortar. The powdered lac is then put in a bamboo tube, well shut up, and it is vigorously shaken with water. A part which is called the blood of the insect, but which is probably merely a solution of the cellular structure, is dissolved and filtered. This is used as a red dye, and it is with this that the red trousers so characteristic of the Karen-ni are dyed. What remains is used as wax for fastening and sealing, and the people of the country use it especially for fixing knifeblades in their hafts.

Cutch, obtained from the *Acacia catechu*, which was dealt with in Chapter VIII, is also used as a dye by the Burmese. The Pegu cutch is the best for this purpose, and it is this which is chiefly sent to Europe. The cutch market for all Europe is in London.

III. Salt is boiled along the whole length of the coast from Akyab to Mergui, but imported salt is displacing home-boiled salt, especially in Pegu. There are two methods of extracting the salt, accordingly as sea-water or earthy brine is treated. When sea-water is used, an area of about three thousand square yards is prepared by raising a small earthen ridge round it. In February sea-water is let in and is allowed to evaporate. In March the muddy deposit is carried off and put in a filter-bed

and salt water is poured over it. Under the filter-bed there is a channel made of palm-leaves, which receives the brine and carries it off to a reservoir near a furnace. In this the water is evaporated off. It is kept boiling night and day, and the salt is collected every hour or two.

In the case of the earth impregnated with salt, the brine deposit is also shut in by a ridge, and the whole area is divided into several squares. The earth is dug and turned over, and water is let in and then allowed to dry. Then a fresh supply of brine-impregnated water is introduced into the first square, from which it flows into the second, and so on in succession. The process can be repeated. The water from the last square drains into a cistern, the water from the last but one into the last, and so into the cistern, and so on in procession until the cistern is full. From the cisterns the water is filled into earthen jars, which are placed over a strong fire kept up until the salt is deposited.

IV. The invariable condiment used by the Burmese and the Talaings is *ngapi*, or salted fish. It is used and eaten in various ways. There is *ngapi gaung*, or natural *ngapi*; *taungtha ngapi*, or fish pâté; *seinsa* (Arakanese *ngapi guyeng*: Tavoy and Mergui *gwai*), salt fish eaten raw. The last is known to Europeans by the name of *balachong* in the Straits Settlements. *Ngapi*

gaung is eaten roasted, fried, or with curry. The kind of fish does not much matter. *Ngapi* is made with all manner of fish, although the most popular kind is made with *Nga thalauk* (*Clupea palasah*). After the fish have been scaled and the heads and tails cut off they are salted and put into bamboo baskets to let the liquid drain off. Then they are salted again and put out in the sun, and when they are dry they are packed in hampers with alternate layers of fish and salt. What moisture there is rises and evaporates, and the fish is ready for eating in a month's time. The most noted *ngapi* is that made at Hpayagyi and Angyi, in the Rangoon District. It is known all over Burma. The fishes used are the *Nga ku* (*clasias major*) and the *Nga kye* (*Callichrouss sp.*).

When *nga thalauk* is used the fish is not scaled. It is split up the middle and filled with salt. *Taungtha ngapi* or *dhamin* is made of small fish or prawns, which are spread out in the sun to dry for two days, and are then pounded in a mortar with salt. *Seinsa* is made entirely of prawns at Mergui and Tavoy. There is a variety called *Keik ngapi*, which is only made for Rangoon and Maulmein.

V. Pottery-work is carried on in the dry weather between December and March. In the rains the potters stop all work and take to agri-

cultural pursuits. Pegu, Tunte, and Bassein are the chief centres of production. Pegu is celebrated for its jars, which are known all over India as "Martabans."

The vessels made at Bassein are not without artistic merit. Papun and Tavoy turn out fine pottery-work, and Pyinmana is celebrated for ornamental pottery. There are great factories at Singu in the Mandalay district. The dolls made of the Shwedaik earthenware are well known. Pakôkku, Magwe, and Minbu also turn out a good deal, and as a matter of fact there are few places where some kind of pottery is not made.

The Shans have long manufactured glazed pottery, and no doubt learned the art from the Chinese, and they in their turn introduced it into Burma. Tiles and plaques of baked earth have been found at Tagaung, Pagān, Prome, and Pegu, all old capitals of Burma. Specimens may be seen in the Phayre Museum in Rangoon.

VI. Although there is no lacquer-work in Burma which can be compared with Japan lacquer, or Chinese lacquer, described in Chapter XII., p. 166, of *L'Empire Japonaise et sa vie économique*, yet Upper Burma has developed a special kind of the work in the figured red lacquer, which is known as Pagān lacquer, and employs a considerable number of people. Boxes,

cups, and tables are made with much taste and a certain amount of skill. The box is made of the required size in fine woven bamboo. This is then smeared over with a groundwork of dark-coloured pure vegetable oil, known by the name of *thitsi*, which is extracted from the *Melanorrhœa usitatissima*. When it is quite dry, a mixture of sawdust, wood-oil, and rice-water is applied, and when this, again, is quite dry, the box is firmly fixed to a post and carefully polished with a piece of silicious bamboo, which acts like sand-paper. Then it is again covered with another layer of paste made of fine bone-dust and wood-oil, which is allowed to dry, and then again polished in the same way.

Only three colours are employed in the ornamentation of the box, but there are different tints of each. For yellow, powdered orpiment is used, which is washed several times till nothing but a pure, impalpable powder remains, which is mixed with a little gum tragacanth. When it is applied to the box it is mixed to the desired consistency with a vegetable oil called *Shan-si*. To get green, indigo is added to the orpiment, and for red, a little vermilion is mixed with *thit-si* diluted with *shan-si*. The patterns are then incised with a kind of style and the whole is covered with a layer of varnish.

VII. Prome is noted for another kind of in-

dustry, the manufacture of the gilded boxes in which the monks keep their sacred books and palm-leaves. The box is of teak, and is covered over with a mixture of wood-oil and sifted teak sawdust. The inequalities are then smoothed down and the box is covered with a paste made of burnt rice-balls finely sifted and mixed with *thit-si* and rice-water. When this is dry, it is well rubbed with a smooth stone, cocoa-butter, and water, and then another coating of *thit-si* is put on. This entire process is repeated two or three times, and the box is then ready for gilding. The artist paints on designs, flowers, Buddhistic figures, and selected Pali quotations, all of them done with finely prepared gold. Some of these boxes are really very beautiful.

VIII. Metal-workers, who are not very numerous, turn out temple bells, gongs, trays, bowls, and other domestic articles. The bells, which are hung near the pagodas on special stands, are of all sizes, and are always very thick, with a ring at the top so that they can be hung on a stout horizontal beam. They have no tongues, for bells in Buddhist temples here, as everywhere in China and Japan, are struck on the outside with a big wooden mallet. A certain amount of silver is always mixed with the metal for bells and gongs to produce a sweeter sound.

Images of the Buddha are made in this way of bronze, and the religious often throw gold, silver, and precious stones into the molten metal so that they may be melted into the figure. The Burmese metal-workers employ the same method of melted wax which was practised by the Phœnicians, and must have been the system followed by all Asiatic peoples. These smelters are to be found more or less all over the province. They make great quantities of knives and swords. The *da,* or sword, is put to all kinds of uses, even to the cutting of a path through the jungle, a feat which the Burmese and Shans achieve with extraordinary skill and rapidity. These *das* usually weigh from one to four pounds, according to their length, and the back is always broad. The knives or daggers are of different shapes and lengths, and they are very serviceable, though not very neat in their workmanship. Every Burman, Shan, Karen, and, in fact, every person in Indo-China has a *da* and a knife. One never meets any one in the hills who is not armed with a *da* in his belt, and the Burmese blacksmiths sell great numbers in the native bazaars. Goldsmiths' work may be counted among the other native industries. They make rings, bracelets, ear-cylinders, gold and silver chains, boxes, bowls, and silver plates, but there are not more than

three or four thousand workmen in the whole country.

The best wood-carvers are to be found in Henzada. Ever since Europeans have settled in Burma these craftsmen have set themselves to make tables, chairs, picture-frames, and other Western articles carved in the national style; these they sell in Rangoon and Mandalay. Their chief employment, however, is in the ornamentation of monasteries, shrines, and all manner of religious buildings. Burmese wood-carving is coarse and has no true inventiveness about it, though there are those who think that it shows more true artistic spirit than the painful elaboration of detail in Indian work.

The Burmese, and still more the Shans, make a kind of paper from the bark of a certain tree. This industry, however, is falling off, and seems likely to disappear before the importation of European paper of all kinds.

Mat-making is another industry, but it is not equal to the productions of Japan, China, and French Indo-China in workmanship.

Mandalay and Sagaing have a monopoly of sculpture in stone and marble. The sole or at any rate the almost entire object of this work is the adornment of temples and pagodas. The sculptors are sometimes very able, and I have often stopped in the stone-workers' quarter in

Mandalay to visit their shopyards and to admire the statues of the placid Buddha, made to the order of some wealthy citizen, to be dedicated with great ceremony at some pagoda as a penance for his sins.

IX. European trades have not made their appearance in Burma as yet to any extent. There are earth-oil refineries, almost all at Syriam, with the exception of one or two in Rangoon, where the earth-oil is brought in pipes recently laid down by the Burma Oil Company from the Yenangyaung oil-wells, and in the tank steamers of the Irrawaddy Flotilla Company. The Syriam factories are in very active operation. They also turn out candles and tapers for the pagodas.

The rice-mills still continue to represent the chief European industry of the country. Rangoon has 130 of them. In Lower Burma, Thatôn, Pegu, and Amherst also have them, some owned by rich Burmese or natives of India.

Two or three steam sawmills have also been set up in Rangoon by European firms, but they do not at present work as steadily as they might, because of the scarcity of timber.

It is therefore, perhaps, not incorrect to say that all manufacturing activity still remains to be created.

CHAPTER XIII

MISCELLANEOUS

I. Posts and telegraph. II. Public Works, irrigation. III. Finance. IV. Medical statistics. V. Schools, Government and private. VI. The Press and literature —Arts—Sciences—Archæology.

I. BURMA, like the rest of the Indian Empire, belongs to the Universal Postal Union. For inland letters—that is to say, for all Burma and the Indian Empire, of which it is a part—the tariff is as follows :—

For a letter not exceeding three-quarters of a tola in weight, half an anna.

Up to a tola and a half in weight, one anna.

Above this, one anna for every additional tola and a half. A letter posted unstamped is charged double; a letter over weight is charged twice the deficiency.

Postcards are sent for a quarter of an anna.

Book post is at the rate of half an anna the ten tolas, or fraction of ten tolas; pattern post charges are the same.

Newspapers published in the country are charged a quarter-anna the six tolas, or twenty tolas for half an anna, and half an anna for every additional twenty tolas or part of them.

Parcels are sent by post from twenty up to two thousand tolas—that is to say, at from one to twelve rupees postage.

The value-payable parcel system is in use, and is natural, for Europeans in the mofussil can only get the things they want from Rangoon or Mandalay, and with the value-payable system purchase is made easy.

For foreign countries the charge is a quarter of an anna, twopence-halfpenny for twenty grammes weight. In countries belonging to the Postal Union parcels, postcards, and patterns post articles are sent according to the rules and charges of the Postal Union. Post-office orders can be sent under the same conditions as prevail elsewhere.

Burma and the Indian Empire have a system of Post Office Savings Banks, which finds great favour with the people of the country. There is a Deputy-Postmaster-General in Rangoon who is under the orders of the Postmaster-General for all India, who lives in Calcutta.

There are three ways of sending telegrams :—

1. Urgent—16 words for 2 rupees, and 4 annas for every additional word.

2. Ordinary—16 words for 1 rupee, and 2 annas for each additional word.

3. Deferred—10 words for 4 annas, and 1 anna for every additional word.

Telegrams for foreign countries are charged according to the destination. To France the charge is 2 francs 25 cents the word.

The inland telegram is in very common use. Nobody writes; everybody sends telegrams, even about the most trifling things. It is so convenient and so cheap.

II. The engineers of the Public Works Department belong to the Imperial Indian service. They enter with the rank of Assistant-Engineer. Officers are appointed by the Secretary of State in London, with the assistance of a committee which must have a fully qualified Civil Engineer in its number. The candidates must have entered their twenty-first year, but must be under twenty-four on the 1st of July. They must be British subjects and the sons of British subjects. British-born natives of the country are admissible, and if their number and their qualifications are in order, 10 per cent. of the vacancies are reserved for them. No special examination is imposed upon the candidates now. The committee simply considers the testimonials sent in by each candidate, and makes up the list according to their relative value. Special im-

portance is naturally attached to diplomas and certificates of honour.

Promotion in the Public Works Department is by selection. The engineers are employed in the erecting or maintenance of public buildings, roads, canals, and irrigation. Their pay ranges from Rs. 33,000 a year for the Chief Engineer down to Rs. 4,500 for assistant-engineers. In Burma they have to devote special attention to irrigation, which expands every year, particularly in Upper Burma.

The Burma Irrigation Works consist of four main series, known by the names of the Mandalay, Shwebo, Ye-u, and Môn Canal systems. The two latter are still under construction.

In the same way there are four main groups of embankments: (1) The Irrawaddy embankment, west of the river near Henzada and surrounding Thôngwa Island. (2) The three protective embankments on the Sittang in the Pegu District, with the Ma-ubin embankment in addition. (3) A greater or less number of canals and reservoirs of less importance, dating from the time of native rule. These are spread all over the dry zone in Upper Burma, and draw their supplies either from the rainfall or from such rivers as that of Madaya in Mandalay, the Zawgyi and Paunglaung Rivers in Kyaukse, or the Man and the Salin in the Minbu District.

There are also two navigation canals in the Pegu and Thatôn Districts.

The Mandalay Canal irrigates an area of 60,000 acres, and constant new distributaries are being created. When the expenditure has been covered an annual net profit of Rs. 260,000 is expected.

The Shwebo Canal irrigates 150,000 acres, and the anticipated revenue is Rs. 410,000.

The cost of these canals, their maintenance, and extension by the different branches and distributaries is considerable. Thus, if we take a single year's maintenance charges, we find the figures to be as follows :—

	Rupees.
Mandalay	35,000
Shwebo	16,000
Kyauksè	259,000
Myingyan...	6,000
Meiktila	147,000
Yamèthin...	65,000
Minbu	64,000
Magwe	3,000

The heavy expense at Kyauksè was caused by the damage done by the floods of 1908 and the destruction of the weirs in 1902.

The irrigation problem is of the first importance for Upper Burma, which has not the regular productive rains of its neighbour, the Delta. The English engineers have before them

a work which is constantly new and constantly growing, for the maintenance of the canals is a task of great difficulty owing to the damage which is due often and suddenly by the overflow of the waters. Thus the Kyauksè District, a little south of Mandalay, suffered severely two years in succession, in 1908 and 1909, and the crops were almost entirely lost, simply because in September, 1909, 40,000 acres of ricefields were flooded.

In Lower Burma it is the repairing and building of embankments which mostly take up the attention of the engineers, for there water is present in such huge quantities that precautions have to be taken against the mischief it might do. The chief embankments are those of Ma-ubin, between Ma-ubin and Pantanaw, the great embankment which starts from Pantanaw and passes through Henzada to Myanaung, on the west bank of the Irrawaddy; there is a branch which goes off to the north of Henzada, at about the middle, and turns towards Bassein, to the west of the railway, which it protects. To the north of Pegu there are two embankments between the railway and the Sittang River, and one of them goes on through Nyaunglèbin to rejoin the railway to the south of Pyu railway-station.

III. The expenditure and receipts of Burma

are divided into: Imperial expenditure and receipts and Provincial expenditure and receipts, or, in other words, general and local. The Imperial or general receipts include the land tax, the capitation tax in Lower Burma, and the revenue tax, or *thathamede,* in Upper Burma, the fisheries, the irrigation taxes, the Customs and Excise, the salt tax, opium tax, the timber royalty and registration dues in the forests.

The local revenues are district and municipal funds and the port dues.

The total budget of Burma balances itself generally in the excess of receipts. We may take the last two years 1909 and 1910:—

1909.	Receipts. Rupees.	Expenditure. Rupees.
Imperial funds ...	38,648,000	5,783,000
Local funds	73,959,000	72,350,000
Total in rupees ...	112,607,000	78,133,000
1910.		
Imperial funds ...	38,914,000	5,371,000
Local funds	71,364,000	70,841,000
Total in rupees ...	110,278,000	76,212,000

It may be confidently asserted that the receipts are always in a surplus of from Rs. 35,000,000 to Rs. 40,000,000, and this surplus usually grows every year, unless there are accidents or unforeseen disasters. The financial

position of Burma is excellent, and it cannot fail to improve. Rice, the chief wealth of the province, is never wanting, and in Burma one never sees, as in India, whole regions deprived of water and swept by famine. Burma is rich, and therefore living is expensive, more expensive than in any part of India. But in spite of this British officials who have had a term of service in Burma do not willingly go back to India. Moreover, the wealth of the province, added to the laziness of its population, brings about a constantly increasing inflow of natives of India, more especially in Lower Burma. When one lands in Rangoon it would be easy to fancy oneself in a town on the coast of Malabar or Madras. One only sees a Burman here and there in the distance. The number of natives of India who yearly come to Rangoon amounts to about 250,000. Some of them remain permanently, and they end by getting possession of much land round the towns and driving the Burmans northward, so that the country round Rangoon is becoming Indian, with nothing but people from the Madras or Malabar coast. Akyab, Mergui, and Maulmein in the same way have large numbers of Indian emigrants. This is, however, more apparent than real, and is not borne out by census or Land Record Reports. A very considerable proportion of the land still

belongs to the Burmese. It is the circumstance that most of the harvest work is done by Indian coolies that gives the impression that the land is passing into alien hands.

To see Burmese Burma one must go to Kyauksè or Mandalay.

IV. Medical statistics for the year 1910 give the following figures :—

	Deaths.
Cholera	11,389
Smallpox	1,011
Plague	6,946
Fevers	80,759
Dysentery and diarrhœa	12,397
Diseases of the respiratory organs	7,779
Suicides	151
Accidents and injuries	1,471
Snake-bite	1,520
Other causes	134,439

The small number of suicides is remarkable. It is much lower than in any country in Europe which calls itself civilized. It is perhaps over-civilization which promotes suicide. The Burmese are a simple and happy people, who take life as it comes, always laughing and free from worry.

Cholera always carries off a good many, sometimes in one place and sometimes in another, and so does the plague, but of endemic diseases fevers are the most deadly. Outbreaks of smallpox are sometimes very severe. In 1906 there

was an epidemic which carried off thousands of the people.

The small number of deaths from snake-bite is also noticeable, when one thinks of the multitudes of these horrible creatures in the country.

The hospital service is admirable. The two largest and the best are naturally those in Rangoon and Mandalay, but there are hospitals in all the chief towns, and at the time of writing the hospitals and dispensaries for all Burma number 260.

The expenditure necessary to combat the plague has overburdened the finances of many towns and districts, and has consequently hampered the steady watching of the epidemic owing to want of funds. It will be difficult to arrive at a sure way of preventing this curse, and just as is the case with cholera, the doctors will have to live with it and become accustomed to it before a really effective cure is discovered.

Leprosy is one of the endemic diseases which causes considerable ravages. All manner of remedies have been tried to check it, if not completely to cure it. Dr. Rost, a specialist in the question in Rangoon, thought he had discovered a serum, but it does not work infallibly. Several French missionaries and sisters have contracted it, and are cared for at the Leper Asylum at

Kemmendine, near Rangoon, which is presided over by Father Freynet, with a staff of Franciscan Sisters. One of the Sisters has been cured, but the other victims have not derived any benefit from the injections of serum.

V. Education in Burma is carried on in Government schools, under the control of the Department of Public Instruction, and inspected by it. There are Government schools and private schools almost independent of official supervision. The number of free schools is greater than that of the Government schools. There are 17,000 of them as against 7,000, but the pupils in the Government schools are the more numerous, 270,000 as against 171,000. Of the public, or non-official, schools 15,000 are Buddhist monasteries, and among these there are many that have not more than two or three pupils. They are graded as primary schools, secondary schools, and the colleges. The primary schools teach up to the fourth standard, and sometimes up to the first standard of the secondary course. Two of the schools are Government property, eighteen are subventioned, and seven are under Government control. English is only taught by ear in the three lower standards. In 1911 there were 250,000 pupils in the Government primary schools.

The secondary schools number 650, with

45,000 pupils. They are divided into two classes: upper and middle secondary schools. There are such schools at Prome, Yandun, Letpadan, Mergui, Kyaikto, Rangoon, Mandalay, and at all the principal towns of the province. There are 95 of them that prepare the youth for higher teaching and educate them up to the standard of the matriculation at Calcutta University. In 1910 there were 114 candidates from Burma schools and 101 of them passed, 77 of them in the first class.

Among the Rangoon schools that of the Christian Brothers deserves mention. It has 1,500 pupils at least, and the teachers are French and Irish. The same body of Christian Brothers has a school at Mandalay, with an attendance of 500. The headmaster, Brother Jean, whom I have already mentioned, is a Frenchman of high standing, whose character and intelligence are held in high estimation by the European population. These two schools are always very successful in the examinations and are considered among the best in the province.

Rangoon College teaches up to the standard which corresponds with our bachelor's degree. There are about a hundred pupils.

There are also schools for special professions in several towns. Rangoon in particular has three of them.

There are seven normal schools, with an attendance ranging between 350 and 400.

Girls are beginning to attend the primary schools like the boys. There is still, however, a great deal to be done in this direction. Only one girl in ten goes to school.

VI. As to literature, nobody will be astonished to hear that there is not much to be said. There are some histories and legendary tales, a great many Buddhist treaties, and a few translations of English novels.

The two newspapers with the largest circulation are the *Rangoon Gazette* and the *Rangoon Times*. The first comes out in the morning and the second in the evening. There is also the *Burma Critic* in Mandalay and the *Monthly Review of the Society for Promoting Buddhism*. In several other towns there are journals, or periodicals, in Burmese, mostly edited by Protestant missionaries.

From the point of view of art there is a great deal to be done, or to be revived. In spite of the decay and corruption of Burmese taste in many branches of art, there is a certain revival noticeable. Wood-carving flourishes in Mandalay, especially for the pagodas and religious buildings, while Henzada is noted for its carvings for boats. In Thayetmyo and Bassein silver-work has been revived. Government is trying to

encourage this revival of Burmese art, and apprentices in silver-work, lacquer, and carving have been taken on in various towns, with allowances of ten rupees a month for four years.

In 1910 there was a Burmese Arts and Crafts Exhibition in Rangoon, which met with some success, and the progress made in the various branches was quite noticeable.

There is an Archæological Department in Mandalay, presided over by a Burma-born Chinaman, Mr. Taw Sein-ko. He is empowered to restore and keep up such Burmese monuments as are worth the trouble and are still in a state that admits of repair, as, for example, the Royal Palace in Mandalay, where a museum has been established.

The department is also charged with the duty of making studies in the ruins of old capitals, such as Pagān, Prome, Ava, Amarapura, and of the old races that formerly dwelt in the Irrawaddy Delta. Up to now no very noteworthy discoveries have been made. It will take some time for the archæological Department to reach the level of the services which it has been created to render.

CHAPTER XIV

THE ANDAMAN ISLANDS

NOT so long ago the Andaman Islands were a dependency of the Viceroy and Governor-General of India, who appointed the officer to the charge of it. Now this group of islands, as well as the Nicobars, is under the Burma Government, and the then Lieutenant-Governor, Sir Herbert Thirkell White, paid his first official visit there in 1907. They are only a very small part of Burma, and furnish it with its penal settlement, but they deserve to be mentioned.

The Andamans were originally inhabited by a dwarf race of Malay origin, but this aboriginal race has been rapidly extinguished as a consequence of intermarriage with other types, who have for long years been deported to these islands. The population is therefore a mosaic of all the races of India and Burma, liberated convicts, or men sentenced to penal servitude.

There are from sixteen to twenty thousand prisoners who work at woollen and cotton weav-

ing, husking rice, and expressing coco-nut oil. Cotton and woollen blankets bring in a sum of almost Rs. 3,000 to the prison. The amount of rice husked has occasionally amounted to 1,000,000 lbs. or 1,500,000 lbs. of white rice. The oil presses of "Viper Mill" produce 150,000 lbs. of oil, which is usually sold in Calcutta.

The total cost of the public works, including the work of the prisoners, mounts up to an average total of Rs. 400,000. In the Department of Public Works the convicts are classed as stokers, fitters, and drivers. The value of the goods turned out for Government, or for private purchasers, amounts in ordinary years to Rs. 150,000. The workshops on Phœnix Bay take an important place in the work, and give a great deal of assistance to the Public Works and Naval Departments. In these works 500 prisoners are employed in the foundries, tanneries, chalk furnaces, and cane factories. The chalk-kilns manufacture 250 cubic feet in the year; 500 bullock-hides and 2,500 goat-skins and sheep-skins are tanned and prepared and sold.

The foundries bring in from Rs. 13,000 to Rs. 15,000 annually.

In the rope and rattan works about thirty good workmen are trained every year, and the

value of the manufactured articles comes to from Rs. 12,000 to Rs. 13,000. The articles made are fancy chairs, tables, lounge-chairs, ropes, and mats.

In the brick-fields at Dundas Point each man makes by hand 1,500 bricks in the day, and excellent bricks have been made by mixing the hill clay with the clay from the creeks.

The farm and the dairy under the management of the Commissariat Department are a complete success, especially in times of scarcity of milk in some of the districts, caused by cattle disease. The Chatham sawmills turn out about 150,000 cubic feet of planking.

On the agricultural side the cultivation of tea is one of the chief occupations of the convicts. In the three tea-gardens of Navy Bay, Goplakataung, and Kalataung, the quantity of tea picked is 170,000 lbs., which is sold in Madras and Burma. The Kalataung garden, thanks to its excellent soil for the tea-tree, is the most prosperous. Of other cultivation the coco-nut-palms do best. The extraction of oil from the copra and the twisting of the fibre into ropes is excellent occupation for the convicts. Coffee is also grown and limes, and the produce of the kitchen gardens helps to feed the prisoners.

The rubber industry has also penetrated to

the Andamans. Hevea, Ceara, and Para rubber are all of them cultivated. There are 15,000 trees at Narenmaghar. Near Navy Bay there are 200, and some have been planted at Aberdeen, in North Bay, but the plantations are still young and are only just beginning to yield. Nevertheless the yield promises to be large. The Hevea and the Ceara do particularly well.

Sugar-cane is also cultivated, and the *Musa textilis* or textile banana.

Each prisoner costs about eighty-five rupees. Since 1905 the Andaman Islands have been connected with India by wireless installation. The islands have great oyster-beds, and it is said that fishers have lately discovered specimens of the *Melogonia margaritifera* or pearl-bearing oyster.

To all the products and all the industries which have been mentioned there has to be added a considerable timber trade. It is therefore clear that these remote dependencies of Burma are not beneath notice from the economic point of view.

MAP OF BURMA



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